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ABSTRACT

Presented is a general statistical description of the population of individuals with salaried faculty status at U.S. medical schools. The purpose is to provide a reference on manpower in medical education and biomedical research. Data are drawn from the Association of American Medical Colleges' Faculty Roster. The information, largely focusing on full-time faculty, is presented in five segments: (1) an overview of earned degrees, academic ranks, major academic departments, and primary specialties; (2) areas of responsibility of the faculty; (3) employment history; (4) training and credentials; and (5) special topics, including faculty characteristics by sex and ethnic group, foreign medical graduates, and newly-hired faculty. (Author/MSE)

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**DESCRIPTION OF SALARIED MEDICAL SCHOOL FACULTY
1971-72 AND 1976-77**

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DESCRIPTION OF SALARIED MEDICAL SCHOOL FACULTY
1971-72 AND 1976-77

Pamela J. Griffith
Coralie Farlee, Ph.D.

Division of Operational Studies
ASSOCIATION OF AMERICAN MEDICAL COLLEGES

FINAL REPORT

December 1977

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EXPLANATORY NOTES

The following conventions are used in abbreviations and symbols throughout this report.

Degree

M.D. & Ph.D.	Faculty member holds both the M.D. <u>and</u> Ph.D. degree.
M.D.	Holds the M.D. degree only (as highest degree).
Ph.D./O.H.D.	Holds the Ph.D. degree <u>or</u> other health doctorate (e.g., D.D.S., D.Ph., D.V.M., O.D.).
Non-doctorate	Highest degree is at either the masters or baccalaureate level, or does not hold an earned degree.

Percentages

Individual percentage entries have been rounded to the nearest whole number for clarity and ease of reference. Thus, occasional percentage totals may round to 99 or 101 due to the rounding adjustment.

The symbol * is used to denote percentage entries which are not large enough to round to 1 percent. Entries of 0 percent indicate no frequency count for that category.

EXECUTIVE SUMMARY

This report, Description of Salaried Medical School Faculty, 1971-72 and 1976-77, presents a general statistical description of the population of individuals with salaried faculty status at U.S. medical schools. The purpose of the report is to provide a reference document on manpower in the areas of medical education and biomedical research.

The report is based upon data drawn from the Association of American Medical Colleges' Faculty Roster data base, a system designed to contain demographic, training, employment history, and current appointment data for all individuals having salaried faculty status at U.S. medical schools. The information available in the data base as of July 1977 was adjusted to reflect faculties as of January 1977 and January 1972--including 45,078 cases for the 1976-77 academic year and 37,809 cases for the 1971-72 academic year. Data elements for these individuals were selected, recoded, and tabulated to produce the summaries included in this report.

The results of the study, for the most part focusing on full-time faculty, are presented in five sections. First, an overview of medical school faculty is given in terms of earned degrees, academic ranks, major academic departments, and primary specialties. Second, areas of responsibility of the faculty are summarized. Third, employment history data are presented. Fourth, data on training and credentials are given. Finally, special topics are treated, including characteristics by sex and ethnic group, and descriptions of foreign medical graduates and newly-hired faculty.

Each section of results includes tabular summaries of the characteristics of salaried medical school faculty as well as narrative description of the findings. Comparisons of faculty characteristics in the 1971-72 and 1976-77 academic years are made in several instances. Since this is intended to be a descriptive reference document, interpretations and conclusions are not made.

Highlights of the findings contained in the report are as follows:

- Faculty holding both an M.D. and a Ph.D. con-

stituted 5 percent of all salaried faculty in 1976-77; those with an M.D. comprised 65 percent; those with a Ph.D. or other health doctorate, 26 percent; and those with no doctoral degree, 7 percent.

- Seventy-two percent of all 1976-77 salaried faculty held strict full-time appointments. M.D.'s held particularly high percentages of both geographic appointments and appointments in affiliated institutions. Eleven percent of salaried faculty held part-time appointments, most of whom (82 percent) were M.D.'s.

- Twenty-three percent of all salaried 1976-77 faculty were professors, 20 percent were associate professors, 30 percent were assistant professors; the remaining 26 percent of salaried faculty held ranks of instructor, lecturer-and-other, or clinical ("modified") ranks.

- The distributions of salaried faculty across the major academic departments remained essentially unchanged between 1971-72 and 1976-77. Seventy-one percent of 1976-77 faculty were in Clinical Science departments, with departments of Medicine far exceeding all others in size (18 percent of all faculty). Basic Science departments accounted for 23 percent of all salaried faculty, and included higher percentages of professor and associate professor ranks than did Clinical Science departments.

- Most departments were homogeneous, having most of their faculty in specialties or disciplines reflecting the name of the departments. One Basic Science department (Microbiology) and several Clinical Science departments contained high percentages of diverse disciplines or specialties.

- The percentage distributions of full-time faculty over 33 primary specialties or disciplines were nearly identical for the 1976-77 and 1971-72 academic years. Basic Science specialties were indicated by 27 percent of 1976-77 full-time faculty, including 66 percent of the Ph.D./O.H.D. degree group. Sixty-one percent of full-time faculty (including 90 percent of M.D.'s) were in Clinical Science specialties. Internal Medicine was the largest of all specialty areas (14 percent of all faculty). Fifty-three percent of 1976-77 non-doctoral faculty were in Behavioral and Social Science or Allied Health disciplines.

- The modal pattern of responsibilities for M.D. faculty was teaching, research, and patient care; for Ph.D./O.H.D.'s it was teaching and research.

- Eighty-nine percent of all full-time 1976-77 faculty were involved in teaching responsibilities; 71 percent were involved in research (including 90 percent of Ph.D./O.H.D.'s and 63 percent of M.D.'s).

- Forty-one percent of the full-time salaried faculty were in their first professional jobs in 1976-77. Fewer M.D.'s than other faculty had held previous professional employment.

- Average length of employment in 1976-77 full-time faculty appointments was 8.0 years, a considerable increase from 6.8 years in 1971-72. Length of current appointment was related to rank, ranging from an average of 13.2 years for professors, to 4.0 years for lecturers.

- The majority of 1976-77 full-time faculty joined medical school faculties directly from professional training, rather than from previous professional employment. An especially high percentage of M.D.'s were recruited into faculty status directly from professional training.

- Eighty-four percent of full-time M.D. faculty in 1976-77 and in 1971-72 had completed an internship. Eighty-seven percent (84 in 1971-72) had completed a residency program. More residencies were completed in Internal Medicine than in any other specialty (32 percent in either year). Family Practice and Nuclear Medicine showed dramatic numerical increases in residencies over a five-year period, although the percentages of residencies in these areas remained under 0.5 percent.

- Sixty-six percent of M.D. faculty in each year held at least one board certification. Internal Medicine was the largest single area of board certifications (24 percent). As with residency specialties, the numbers of board certifications in Family Practice and in Nuclear Medicine increased dramatically over a five-year period, although the percentages of certifications in these areas remained extremely small.

- Sixty-two percent of the 1976-77 faculty with Ph.D.'s had received pre-doctoral awards, with NIH being

the largest single source of such support (one-third of all pre-doctoral awards). Most of the pre-doctoral awards (65 percent) were granted in the Basic Sciences, with Biochemistry being the single discipline receiving the most support over all time periods combined.

- Post-doctoral awards had been received by 54 percent of full-time doctoral faculty, with NIH again being the largest single source of support (about half of all post-doctoral awards in recent years). All federal government sources, combined, accounted for increasing percentages of awards through the 1960's. Over half (56 percent) of the post-doctoral awards were in Clinical Science areas, with Internal Medicine receiving more than any other discipline (18 percent of all post-doctoral awards).

- Female faculty comprised about 15 percent of the 1976-77 full-time faculty force. While there were no differences by sex in the type of employment held, fewer women than men had an M.D. degree (43 percent vs. 68 percent), and more women than men held no doctorate (28 percent of women vs. 4 percent of men).

- Within each degree type, the relative percentage of professors is at least twice as high for male faculty as for females, whereas the relative percentage of females in the instructor and lecturer-and-other ranks is twice as high as for males.

- Among full-time M.D. faculty, women were slightly younger than men, and tended to be from "other" minority origin more than did male M.D. faculty.

- Male doctoral faculty tended to have a wider range of areas of responsibility than did female faculty, and about the same percentage of involvement in teaching activities as did women. Female M.D.'s had less involvement in research than did male M.D.'s. In all doctoral degree groups, males had slightly longer duration of employment in their 1976-77 appointments. Male M.D.'s had more prior professional employment than women did.

- Most of the 95 percent of full-time faculty in U.S. medical schools for whom the ethnic/racial information is available were Caucasian (88 percent). Three percent were in one of the under-represented categories (Black American, American Indian, Mexican American, or

Puerto Rican). The remainder, about 10 percent, were other Hispanic, Asian, or "other" minorities.

- Fewer than two percent of the full-time faculty with doctoral degrees were of under-represented minority origin, with other minorities constituting between 9 and 16 percent of each doctoral degree group (and 4 percent of non-doctoral faculty).

- Of full-time doctoral faculty who were U.S. citizens, lower percentages of under-represented minorities held ranks of professor than did Caucasian faculty, and relatively higher percentages of minorities with doctorates were employed in instructor or lecturer-and-other ranks.

- Under-represented minority faculty had lower rates of involvement in research responsibilities than did Caucasian or "other minority" faculty; under-represented minority M.D.'s had less previous professional experience than did M.D.'s in the other two ethnic groups.

- Twenty-one percent of full-time M.D. faculty in 1976-77 had completed their medical education in countries other than the U.S. or Canada.

- Foreign medical degrees constituted about 25 percent of all M.D. degrees granted in the 1950's or 1960's, but only 13 percent of the M.D. degrees granted to full-time faculty in the 1970-76 period.

- Foreign-trained M.D.'s were slightly younger than U.S. or Canadian-trained M.D.'s. They also had higher percentages of women and of "other minorities" (not under-represented minorities). Higher percentages of foreign-trained M.D.'s than of other M.D.'s were in Basic Science specialties.

- Foreign-trained M.D.'s had a somewhat narrower range of areas of responsibility, similar rates of involvement in teaching and in research, as compared with Canadian or U.S.-trained M.D.'s, and much lower rates of employment at the rank of professor.

- Foreign-trained M.D.'s had somewhat shorter duration of employment in their 1976-77 faculty positions, a somewhat higher number of previous professional jobs, and a relatively high rate of recruitment from foreign academic sources, as compared with U.S. or Canadian-trained M.D.'s.

- Thirty-six percent of foreign-trained M.D.'s were U.S. citizens.

- Faculty who began salaried faculty employment at U.S. medical schools in the two-year period prior to January 1977 constituted 15 percent of the 1976-77 faculty force.

- Only 6 percent of new faculty held 1976-77 appointments at the ranks of professor or associate professor, as compared with 55 percent of faculty who had been in the U.S. medical school manpower pool for longer than two years.

- Newly-hired faculty were considerably younger than other faculty. They had higher percentages of women, of minorities other than under-represented minorities, and of Clinical Science specialists than did other faculty.

- Persons new to the full-time medical school faculty population had a considerably narrower range of responsibilities than did other faculty.

- Newly-hired M.D. faculty had more professional experience prior to their 1976-77 faculty appointments than did other faculty. New-hires in all degree groups had lower rates of initial recruitment from NIH or NIMH training programs.

- Much higher percentages of new-hires than of other doctoral faculty were citizens of countries other than the U.S. or Canada, and relatively more newly-hired M.D.'s than other M.D.'s were foreign-trained.

I. INTRODUCTION

This report presents a description of the largest single resource contributing to the quality of medical education in the U.S.--the population of individuals constituting the salaried faculty force of U.S. medical schools. The purpose of this report is to provide a reference document containing essential descriptions of manpower in the areas of medical education and biomedical research. The focus of the report is the faculty force for the 1976-77 academic year, especially the 90 percent of faculty employed on a full-time basis. For the identification of trends in selected faculty characteristics, data on manpower during the 1971-72 academic year are also presented. The source of the data is the AAMC Faculty Roster System, a continuously maintained database which is the most complete source of information on U.S. medical school faculty.

The report is organized into sections by groups of characteristics. First, tables are presented on the academic degree credentials of all salaried faculty, followed by general appointment characteristics including rank, academic departments, and primary specialties. Second, the major areas of responsibility of faculty are summarized in terms of numbers of areas, combinations of areas of responsibility, and extent of involvement in teaching and research. The third section of tabulations details the employment histories of faculty in terms of total number of professional jobs, length of current employment, original source of faculty, previous employment location, and private practice experience (of M.D.'s). Next, the training and credentials of the manpower pool are summarized, including educational characteristics (internships, residencies, and board certifications) of M.D. faculty, followed by details of pre- and post-doctoral awards received by faculty. The final section of analyses presents data on several topics of special interest. Demographic, current appointment, and employment history characteristics are summarized by sex, by race/ethnic origin, and by country of M.D. training; finally, new-hires vs. other faculty are compared on these selected characteristics.

The tabulations in this report are generally parallel to those contained in two earlier descriptive studies of salaried medical school faculty at other time periods (Anderson, 1975; Griffith and McRae, 1977). The earlier reports did not distinguish between full-time and part-

time faculty in tabulations of data. The present report focuses on the approximately 90 percent of the faculty force who had full-time salaried faculty status at U.S. medical schools at each point in time under consideration. Since appointment characteristics, responsibilities, and demographic characteristics can be expected to be somewhat different for part-time faculty as compared with full-time faculty, the tabulations in this report either distinguish between these two employment groups (the initial tables), or are purified to reflect full-time faculty only. Thus, this report will be especially useful in documenting the characteristics of core (i.e., full-time) faculty of U.S. medical schools.

Some general figures on faculty and enrollment (JAMA 1972 and 1977) provide background information for the data in this report: During the five-year period between the academic years 1971-72 and 1976-77, 14 new U.S. medical schools received provisional accreditation, raising the total number of fully and provisionally accredited schools from 102 to 116.¹ During this same five-year period undergraduate student enrollment in medical schools increased 32 percent, from 43,650² to 57,765.³ Increases in the numbers of graduate medical students in other health related fields who also use resources of medical school faculties added further to the increasing manpower demand. To meet this need, the number of salaried faculty at U.S. medical schools increased by 32 percent, from approximately 37,500² in 1971-72 to approximately 49,500⁴ in 1976-77.

¹Liaison Committee on Medical Education, 1977.

²Journal of the American Medical Association, 1972.

³Association of American Medical Colleges, 1977(b).

⁴Journal of the American Medical Association, 1977 (in preparation).

II. METHODOLOGY

A. The Data Base

The data for this report were derived from the AAMC's Faculty Roster System (FRS). This system was initiated in 1966 in order to provide a national database on U.S. medical school faculty characteristics. The data are utilized for general descriptive studies such as this report, and for selected targeted studies on topics of national concern. In addition, approximately 15 computer-generated rosters and data summaries are periodically derived from the Faculty Roster System to provide individual medical schools with complete rosters, auditing tools, information for accreditation and other national surveys, and data summaries for a variety of institutional development and self-study management purposes.

Data collection for the Faculty Roster System was conducted on an annual basis from 1966-67 through 1972-73 (except for 1969-70); since 1973 data has been entered into the system on a continuous basis. The project has been supported since its inception by the Bureau of Health Manpower (a subdivision of DHEW).

Operationally, the FRS works in the following manner: When a person is hired for the first time for a salaried faculty position at a U.S. medical school, a "New Accession Form" is completed by the school and forwarded to the AAMC. (A copy of the New Accession Form used from 1972 to 1977 is reproduced in Appendix A.) The information on this form is reviewed for completeness and consistency, coded, and entered into the FRS master file. The information collected includes basic demographic data, current appointment data, training, credentials, and employment history data, and information on current participation in federal programs. This information remains in the FRS master file as it was submitted until a significant change in employment status takes place. When that happens, the school (or faculty member) forwards an "update" form to the AAMC, reflecting the new appointment status or new activities. If a person transfers from the faculty of one school to another, or leaves a faculty (deactivates), or at a later date returns to a U.S. medical school faculty (reactivates), this information is handled via "updates" rather than through resubmission of a New Accession Form.

B. Validity of the Data Base

The FRS is designed to include data for all salaried faculty at U.S. medical schools (volunteer, or non-salaried faculty, are included in the FRS master file on an optional basis). As with virtually all data collection systems, it is unrealistic to assume that all data elements and all records for which the system is designed are in fact submitted and available for analysis. Although every attempt has been made to secure cooperation from the schools in submitting data, some schools have been unable to participate fully. Some schools have participated on a sporadic basis, bringing their files up-to-date all at once and then not submitting New Accession Forms or Updates for long periods of time. Still other schools have been able to participate in data submission for only a portion of the requested information. The result of these varying degrees of participation in data submission is that the master file, at any given point in time, has varying degrees of currency and completeness for different schools.

During the summer of 1977, the AAMC conducted a "verification" study to obtain estimates of the degree of accuracy and completeness of the Faculty Roster master file. Three independent analyses were conducted using sampling procedures specifically designed to estimate accuracy and completeness. The major findings of this effort were as follows:

- Approximately 10 percent of the records in the FRS master file as of April 1977 represented persons who were no longer active faculty for the school or department surveyed.
- The April 1977 FRS master file contained records for 82 percent of all salaried U.S. medical school faculty.
- Of the 90 percent of the records in the April 1977 FRS master file that represented currently active faculty, 83 percent were entirely accurate with respect to name, rank, school, primary department, and joint department.
- Information maintained in the FRS master file had an overall accuracy rate of 94 percent.

● Accuracy rates for the five major areas of information were:

demographic data, over 98 percent accurate;
employment history (including current
appointment information¹), 93 percent
accurate;
education and credentials, 93 percent accurate;
pre- and post-doctoral support, 96 percent
accurate;
current participation in federal programs
(not analyzed in this report), 88 percent
accurate.

The results of the "verification" study show that data contained in this report may be taken as accurate estimates of the relative distribution of various characteristics in the total population of salaried U.S. medical school faculty. The limitations just noted impose a caveat against the use of the figures in this report as precise "head counts" of faculty in the various categories considered. Percentage figures in the tables should be utilized rather than the exact faculty counts.

C. Analysis Procedures

The FRS master file was modified in two respects in order to yield the research data files used for the tabulations in this report. The first step was the application of a "roll-back" procedure to the July 1977 master file. The roll-back procedure makes two types of alterations to the data file: Records with effective dates of employment after the point in time being studied are eliminated; also, any transfers or deactivations that occurred after that point in time are reversed so that those records are maintained in the file. Thus the July 1977 master file was altered to reflect individual faculty status as of two points in time, January 1977 and January 1972. Only the records of active salaried faculty for each point in time were retained; all inactive or volunteer faculty were deleted from the data files used for this report.

Data may be submitted by schools to the FRS at any time, and schools vary considerably in the timeliness of data submission. Applying the "roll back" procedure to

¹Current employment information includes academic rank which had an accuracy rate of about 90 percent.

the July 1977 master file to create a file reflecting faculty status as of January 1977 was the strategy used to make the great majority of records current for a single previous point in time. The same procedure was applied to the July 1977 master file to create a second file containing only the records of persons with active salaried faculty status as of January 1972.

The second major manipulation of the FRS master file, performed on each of the two "rolled back" files just described, was the recoding of data in its original form to produce the items and categories of information needed for the tabulations in the present study. This manipulation involved reducing and combining the 300 raw data elements to yield 84 recoded elements used in the actual data analyses. The raw data elements contributing to this study are checked on the New Accession Form in Appendix A. A list of the recoded variables and their relationship to the raw data elements is given in Appendix B.

The result of these two data manipulation procedures was two files, one for 1976-77 containing 45,078 records with 84 data elements in each, and one for 1971-72 containing 37,809 records with 20 data elements in each. These two files were analyzed by means of computer programs to yield the results presented in the following chapters.

III. OVERVIEW OF FACULTY

A. Academic Degree

Figure 1 presents the distribution of faculty by their highest earned academic degree, for all salaried faculty in the 1976-77 and 1971-72 academic years. The percentages of faculty holding each type of degree are nearly identical for the two time periods. Two out of every three salaried faculty held an M.D. degree (66 percent in 1976-77, 65 percent in 1971-72); 30 percent held a Ph.D. or other non-medical doctoral degree. About 5 percent of faculty in each year held both types of doctoral degrees, medical and non-medical. Non-doctoral faculty (those with a Masters, Bachelor; or Associate degree as their highest earned degree) comprised 7 percent of all salaried faculty in 1976-77 and 9 percent in 1971-72. Information on degree status was missing for fewer than 1 percent of faculty in each time period.

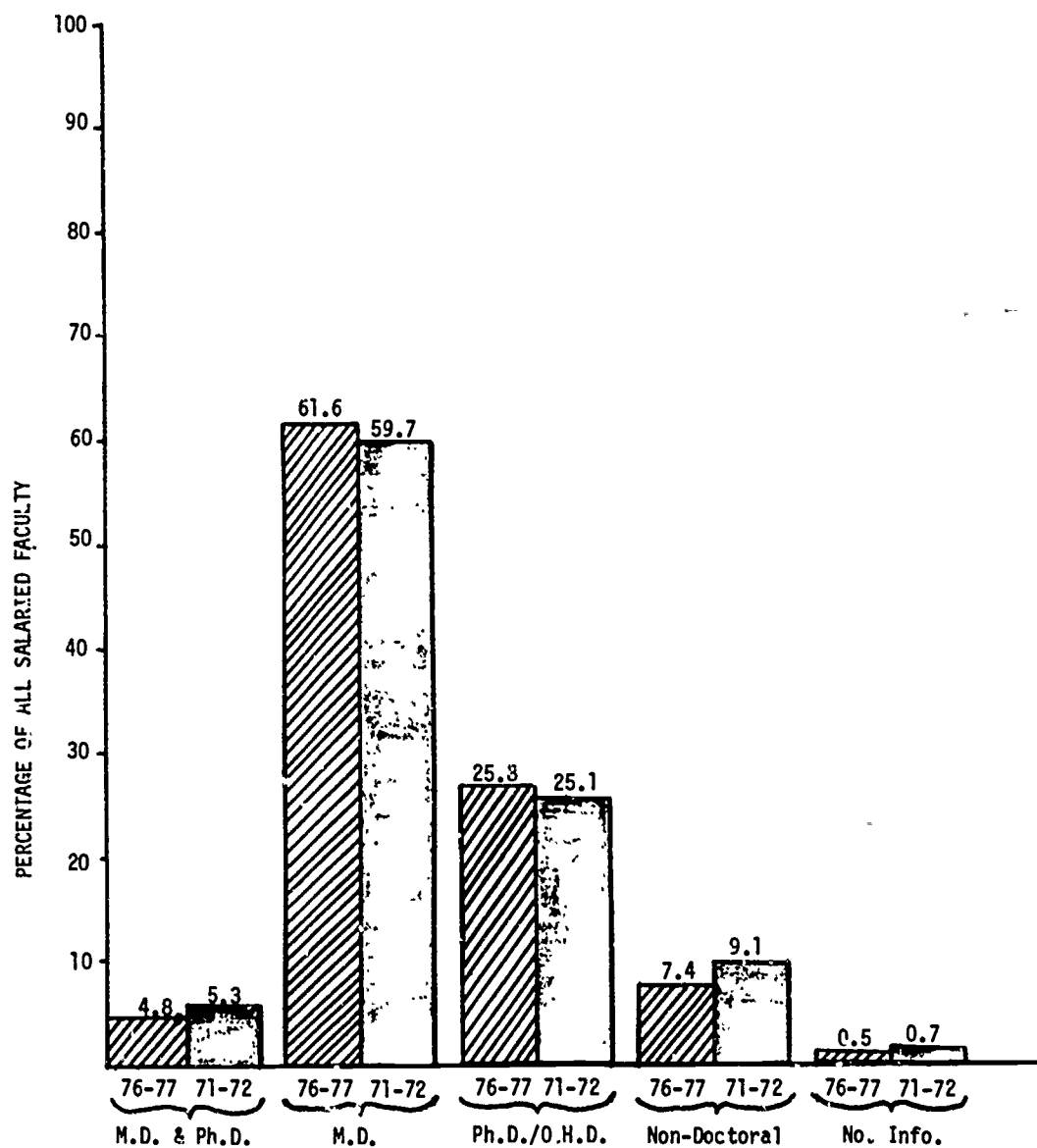
Throughout this report, faculty counts are tabulated for the four degree groups shown in Figure 1 -- M.D. & Ph.D., M.D., Ph.D./O.H.D., and non-doctoral faculty. Table 1 shows a more precise breakdown of the degrees held by 1976-77 medical school faculty, detailing the combinations of degrees held.

The M.D. & Ph.D. category used throughout the report includes the 2159 faculty with the first four combinations of degrees shown (one or two M.D. degrees, plus one or two Ph.D./O.H.D. degrees). The M.D. category used throughout the report includes faculty with two M.D.'s and those with an M.D. plus a Medical Masters degree (M.D.S., M. Med., or M. Surg.), in addition to the 61 percent of faculty with one M.D. degree; these groups taken together constitute the 62 percent of faculty in the M.D. category of the following tables. The Ph.D./O.H.D.¹ category includes some faculty with two non-medical doctorates, as shown in Table 1. Non-doctoral faculty in all of the following tables include the 5 percent of faculty with a Masters degree and the 2 percent of faculty holding a Bachelor or Associate degree as their highest earned academic degree.

Figure 2 shows the decade in which degrees were awarded to faculty holding salaried appointments in U.S. medical schools as of the 1976-77 academic year. Eight

¹See footnote on Table 1.

FIGURE 1
DISTRIBUTION OF SALARIED MEDICAL SCHOOL FACULTY
BY HIGHEST ACADEMIC DEGREE
(1976-77 and 1971-72)



Faculty counts for the above degree groups are:

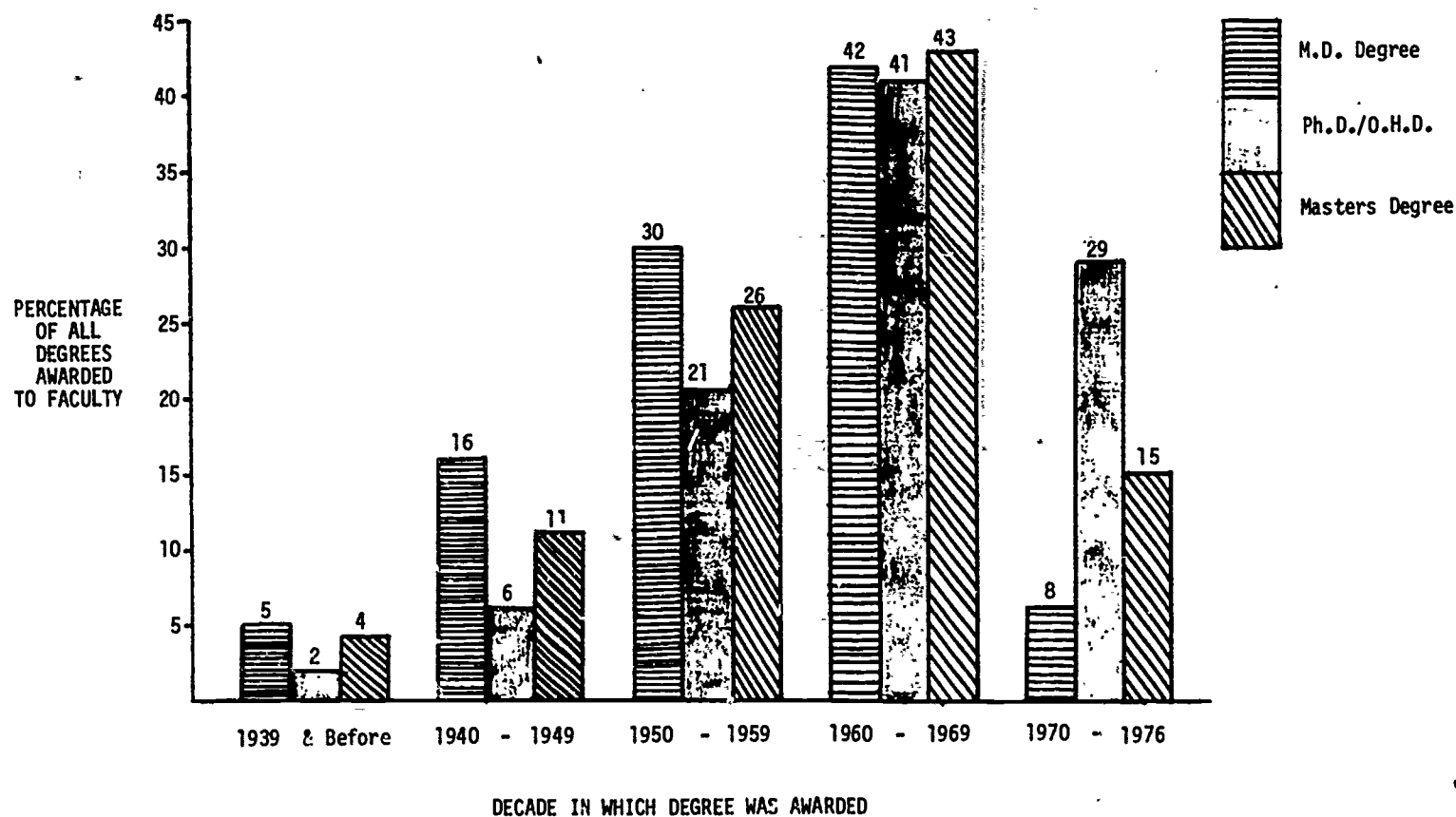
Year	M.D. & Ph.D.	M.D.	Ph.D./O.H.D.	Non-Doc.	No Info.	Total
1976-77	2159	27746	11628	3306	239	45078
1971-72	2016	22590	9492	3433	278	37809

TABLE 1
DISTRIBUTION OF MEDICAL SCHOOL FACULTY
BY DEGREES HELD
(1976-77)

DEGREE OR COMBINATION OF DEGREES HELD BY FACULTY	NUMBER OF FACULTY	PERCENT OF FACULTY
<u>M.D. Plus Ph.D./D.H.D.</u>		
M.D. Plus One Ph.D./D.H.D.	2116	5
M.D. Plus Two Ph.D./D.H.D.'s	16	*
M.D. Plus Medical Masters Plus Ph.D./D.H.D.	10	*
Two M.D. Degrees Plus Ph.D./D.H.D.	(2159)	*
(Total)		(5)
<u>Two M.D. Degrees</u>		
Two M.D. Degrees	131	*
Two M.D. Degrees Plus Medical Masters	17	*
(Total)	(148)	(..)
<u>M.D. Plus Medical Masters</u>	108	*
<u>One M.D.</u>	27490	61
<u>Two Ph.D./D.H.D.'s</u>	193	*
<u>One Ph.D./D.H.D.</u>	11435	25
<u>Masters Degree</u>	2275	5
<u>Bachelor/Associate Degree</u>	1031	2
<u>No Information</u>	239	1
TOTAL, ALL 1976-77 Faculty	45078	100

About 1.5 percent of 1976-77 faculty held a non-medical doctorate in a health-related field (D.D.S., D.Ph., D.V.M., or D.D. degree); these people are included in the Ph.D./D.H.D. category of all tables unless they hold an M.D. degree in addition to the "other health doctorate," in which case they are in the M.D. and Ph.D. category.

FIGURE 2
DEGREES AWARDED TO MEDICAL SCHOOL FACULTY
BY DECADE
(1976-77)



percent of the M.D. degrees held by the salaried faculty were awarded between 1970 and 1976; this contrasts sharply with the 29 percent of non-medical doctorates which were awarded in 1970 or later. Just over 40 percent of each type of degree shown (M.D., non-medical doctorates, and Masters degrees) were awarded in the decade 1960-1969, with another 20 to 30 percent of the degrees having been granted in the 1950's. Twenty-one percent of the M.D. degrees held by 1976-77 faculty predated 1950, as did 8 percent of non-medical doctoral degrees and 15 percent of Masters degrees.

The distribution of 1976-77 faculty by highest degree, shown in Figure 1, is repeated in Table 2 with the further breakdown of faculty by their type of employment.

The employment categories of faculty reported in this section are as follows:

1. Strict full-time medical school or affiliated faculty:
 - a. Strict full-time medical school faculty (SFT) are those who receive their entire professional income as a fixed annual amount from funds controlled by the medical school or its parent institution, who devote their full time to the programs of the medical school, and whose professional activities are under the direct auspices of the medical school.
 - b. Strict full-time affiliated faculty (SFTA) are those who receive their entire professional income as a fixed annual amount from one or a variety of sources (medical school, parent institution, owned or affiliated institutions and their parents), and devote their full time to the programs of the medical school, but whose professional activities are not under the direct auspices of the medical school.
2. Geographic full-time medical school or affiliated faculty:

Definitions of employment categories are from the 1977 AAMC Faculty Profile Guide for Reporting Data, page 3.

TABLE 2

DISTRIBUTION OF MEDICAL SCHOOL FACULTY
BY DEGREE AND TYPE OF EMPLOYMENT
(1976-77)

DEGREE		TYPE OF EMPLOYMENT								TOTAL
		STRICT FULL-TIME		GEOGRAPHIC FULL-TIME		FULL-TIME TOTAL	PART-TIME		PART-TIME TOTAL	
		Medical School	Affil. Instit.	Medical School	Affil. Instit.		Medical School	Affil. Instit.		
		(SFT)	(SFTA)	(GFT)	(GFTA)		(PT)	(PTA)		
M.D. & Ph.D.	Count	1420	217	291	75	2003	89	33	122	2125
	Percent of Degree	67	10	14	4	94	4	2	6	100
	Percent of Empl. Type	5	4	5	4	5	3	2	2	5
M.D.	Count	12806	4136	4313	1773	23028	2592	1243	3835	26863
	Percent of Degree	48	15	16	7	86	10	5	14	100
	Percent of Empl. Type	49	79	78	84	59	77	86	80	61
Ph.D./O.H.D.	Count	9488	565	658	201	10932	434	135	569	11501
	Percent of Degree	82	5	6	2	95	4	1	5	100
	Percent of Empl. Type	36	11	12	10	28	13	9	12	26
Non-Doctoral	Count	2409	268	233	49	2959	258	33	291	3250
	Percent of Degree	74	8	7	2	91	8	1	9	100
	Percent of Empl. Type	9	5	4	2	8	8	2	6	7
TOTAL	Count	26123	5206	5495	2098	38922	3373	1444	4817	43739 ¹
	Percent of Total	60	12	13	5	89	8	3	11	100
	Percent of Empl. Type	99	99	99	100	100	101	99	100	99

¹Excludes 1339 faculty (3.0%) whose degree or type of employment is unknown.

a. Geographic full-time medical school faculty (GFT) are those who receive a guaranteed base salary all or most of which is paid from funds controlled by the medical school (but who may earn income from professional activities), who conduct all of their professional work in the institution(s) paying the base salary, and whose professional activities are under the direct auspices of the medical school.

b. Geographic full-time affiliated faculty (GFTA) are those who receive a guaranteed base salary and who are paid their base salary from one or a variety of sources (usually affiliated hospitals) and may earn some income from professional activities, and whose professional activities are not under the direct auspices of the medical school.

3. Part-time salaried medical school or affiliated faculty:

a. Part-time salaried medical school faculty (PT) are those who receive regular payment for part-time professional activity from funds controlled by the medical school, and whose professional activities are under the direct auspices of the medical school. (Other professional activities and other income are outside the jurisdiction of the medical school.)

b. Part-time salaried affiliated faculty (PTA) are those who receive regular payment for part-time professional activity by a medical school-owned or affiliated hospital or institution, and whose professional activities are not under the direct auspices of the medical school. (Other professional activities and other income are outside the jurisdiction of the institution(s) from which reimbursement is received.)

In 1976-77, 72 percent of all faculty had strict full-time appointments (60 percent at the medical schools, and 12 percent at affiliated institutions); 18 percent of all faculty had geographic full-time appointments (13 percent at the medical schools, and 5 percent at affiliated institutions). Eleven percent of faculty appointments were on a part-time basis (8 percent at the medical schools and 3 percent at affiliated institutions).

The strict full-time affiliated (SFTA) type of employment was held by a higher percentage of M.D. faculty and of M.D.&Ph.D. faculty than of Ph.D. or non-doctoral faculty. This was also the case for geographic full-time employment, both at the medical schools (GFT) and at affiliated institutions (GFTA). While M.D. faculty held about half of all appointments in the SFT category (54 percent), they held more than 80 percent of appointments in the SFTA and GFTA categories (83 and 88 percent, respectively). The geographic type of medical school appointment allows faculty to supplement their base salary with income derived from the delivery of professional services; therefore M.D.'s would be expected to have a higher percentage of this type of employment (18 percent of faculty with both M.D. and Ph.D. degrees, and 23 percent of M.D.-only faculty -- as compared with 8 percent of Ph.D./O.H.D. faculty and 9 percent of non-doctoral faculty).

Eleven percent of all salaried faculty held part-time appointments, most of whom (82 percent) held the M.D. degree.

B. Academic Rank

Table 3 shows the distribution of medical school faculty by rank and type of employment. In the 1976-77 academic year, 23 percent of all salaried faculty held the rank of professor, 20 percent held the rank of associate professor, 20 percent were assistant professors, 10 percent instructors, and 7 percent were lecturers or other ranks. Faculty at all ranks who had clinical titles have been tabulated separately in this report; they comprised 9 percent of the 1976-77 salaried faculty.

Faculty in the ranks of professor, associate professor, assistant professor, and instructor had very similar distributions over the types of employment. The percentages of strict full-time (SFT plus SFTA) appointments ranged from 72 to 77 percent in each of the four ranks. Also in each of the four ranks, about 20 percent of faculty were employed on a geographic full-time basis (GFT plus GFTA). Combining the SFTA, GFTA, and PTA employment categories, the percentage of faculty with appointments at affiliated institutions (rather than at the medical schools) increased with descending rank for the first four ranks listed, totaling 10 percent of professors, 17 percent of associate professors,

TABLE 3

DISTRIBUTION OF MEDICAL SCHOOL FACULTY
BY RANK AND TYPE OF EMPLOYMENT
(1976-77)

RANK		TYPE OF EMPLOYMENT								TOTAL
		STRICT FULL-TIME		GEOGRAPHIC FULL-TIME		FULL-TIME TOTAL	PART-TIME		PART-TIME TOTAL	
		Medical School	Affil. Instit.	Medical School	Affil. Instit.		Medical School	Affil. Instit.		
		(SFT)	(SFTA)	(GFT)	(GFTA)		(PT)	(PTA)		
Professor	Count	7102	722	1816	243	9883	238	90	328	10211
	Percent of Rank	70	7	12	2	97	2	1	3	100
	Percent of Empl. Type	27	14	33	12	25	7	6	7	23
Associate Professor	Count	5652	936	1330	384	8302	275	130	405	8707
	Percent of Rank	65	11	15	4	95	3	2	5	100
	Percent of Empl. Type	22	18	24	18	21	8	9	8	20
Assistant Professor	Count	8160	1860	1702	732	12504	654	224	878	13382
	Percent of Rank	61	14	13	6	93	5	2	7	100
	Percent of Empl. Type	31	36	31	37	32	19	16	18	30
Instructor	Count	2472	721	341	486	4020	282	114	396	4416
	Percent of Rank	56	16	8	11	91	6	3	9	100
	Percent of Empl. Type	9	14	6	23	10	8	8	8	10
Clinical Ranks	Count	720	454	163	118	1455	1595	822	2417	3872
	Percent of Rank	19	12	4	3	36	41	21	62	100
	Percent of Empl. Type	3	9	3	6	4	47	57	50	9
Lecturer & Other	Count	2072	517	174	92	2855	330	65	395	3250
	Percent of Rank	64	16	5	3	88	10	2	12	100
	Percent of Empl. Type	8	10	3	4	7	10	4	8	7
TOTAL	Count	26178	5210	5526	2105	39019	3374	1445	4819	43838 ¹
	Percent of Total	60	12	13	5	89	8	3	11	100
	Percent of Empl. Type	100	101	100	100	99	99	100	99	100

¹Excludes 1240 faculty (2.8%) whose rank or type of employment is unknown.

22 percent of assistant professors, and 30 percent of instructors.

Faculty with clinical rank titles had very different types of employment from other ranks. The great majority of clinical faculty (62 percent) were employed on a part-time basis (PT plus PTA); in fact, the 9 percent of faculty with clinical ranks comprised half of all part-time salaried appointments. Forty-one (41) percent of clinical faculty had part-time employment at a medical school (PT category), as compared with less than 10 percent of any other rank; 21 percent of clinical faculty had part-time employment at an affiliated institution (PTA category), as compared with between 1 and 3 percent of faculty in other ranks.

The academic ranks of full-time faculty are shown again in Table 4, this time with the additional breakdown of highest academic degree. The table shows that 45 percent of the faculty holding both medical and non-medical doctorates (M.D. & Ph.D. category) held the rank of professor. This is a much higher rate of appointments at the professor rank than for M.D.-only or Ph.D./O.H.D. groups (27 and 24 percent, respectively). The percentages of associate professors were similar for these three doctoral degree groups, ranging from 21 to 25 percent. Twenty percent of faculty with both medical and non-medical doctorates (M.D. & Ph.D.'s) were assistant professors, as compared with 33 and 34 percent of M.D.-only and Ph.D./O.H.D. faculty, respectively.

Non-doctoral faculty were employed largely as instructors (39 percent) and in the "lecturer-and-other" category (24 percent); each of the three doctoral faculty groups had 10 percent or fewer faculty employed in each of these two rank categories.

C. Major Academic Departments

Table 5 lists the major academic departments and shows the percentage of faculty affiliated with each department in 1976-77 and in 1971-72 -- including the distributions for full-time faculty and for part-time faculty, in addition to the totals.

Departments of Pathology pose a problem for analysis because they share some of the characteristics of both Basic Sciences and Clinical Sciences. Pathology departments have been included in the Basic Sciences group,

TABLE 4

RANK AND DEGREE DISTRIBUTION
OF FULL-TIME MEDICAL SCHOOL FACULTY
(1976-77, WITH 1971-72 TOTALS)

RANK		DEGREE TYPE				TOTAL FULL-TIME FACULTY
		M.D. & Ph.D.	M.D.	Ph.D./ O.H.D.	Non- Doctoral	
Professor	Count	908	6291	2623	71	9893
	Percent of Rank	9	64	26	1	100
	Percent of Degree	45	27	24	2	25
Associate Professor	Count	483	4840	2765	211	8299
	Percent of Rank	6	58	33	2	99
	Percent of Degree	24	21	25	7	21
Assistant Professor	Count	412	7594	3773	701	12480
	Percent of Rank	3	61	30	6	100
	Percent of Degree	20	33	34	24	32
Instructor	Count	51	2217	578	1154	4000
	Percent of Rank	1	55	14	29	99
	Percent of Degree	2	10	5	39	10
Clinical Ranks	Count	37	1231	97	94	1459
	Percent of Rank	2	84	7	6	99
	Percent of Degree	2	5	1	3	4
Lecturer & Other	Count	118	900	1111	722	2851
	Percent of Rank	4	32	39	25	100
	Percent of Degree	6	4	10	24	7
1976-77 TOTAL FULL-TIME FACULTY	Count	2009	23073	10947	2953	38982 ¹
	Percent of Total	5	59	28	8	100
	Percent of Degree	99	100	99	99	99
1971-72 TOTAL FULL-TIME FACULTY	Count	1850	18531	8836	3082	32299 ²
	Percent of Total	6	57	27	10	100

¹Excludes 193 of 39175 full-time faculty (0.5%) whose rank or degree type is unknown.

²Excludes 172 of 32471 full-time faculty (0.5%) whose degree type is unknown

TABLE 5
DISTRIBUTION OF MEDICAL SCHOOL FACULTY
BY MAJOR ACADEMIC DEPARTMENTS AND FULL-TIME/PART-TIME EMPLOYMENT
(1976-77 AND 1971-72)

DEPARTMENTS	EMPLOYMENT TYPE								TOTAL			
	FULL-TIME				PART-TIME							
	1976-77		1971-72		1976-77		1971-72		1976-77		1971-72	
	Count	% of Full-Time	Count	% of Full-Time	Count	% of Part-Time	Count	% of Part-Time	Count	% of Total	Count	% of Total
BASIC SCIENCE												
Anatomy	1378	4	1282	4	66	1	87	2	1444	3	1369	4
Biochemistry	1531	4	1410	4	40	1	41	1	1571	4	1451	4
Botany	1258	3	1083	3	49	1	42	1	1307	3	1125	3
Cell Biology	2683	7	2341	7	185	4	192	4	2868	6	2533	7
Pharmacology	1103	3	968	3	32	1	38	1	1135	3	1006	3
Physiology	1427	4	1282	4	64	1	63	1	1451	3	1345	4
Other Basic Science ¹	541	1	470	1	18	*	22	1	559	1	492	1
(Total Basic Science)	(9921)	(25)	(8836)	(27)	(454)	(9)	(485)	(10)	(10375)	(23)	(9321)	(25)
CLINICAL SCIENCE												
Anesthesiology	1460	4	1008	3	77	2	52	1	1537	4	1060	3
Dermatology	219	1	197	1	60	1	62	1	279	1	259	1
Family Practice	542	2	279	1	205	4	43	1	847	2	322	1
Medicine	7218	18	5605	17	854	16	757	16	8072	18	6362	17
Neurology	904	2	688	2	79	1	106	2	983	2	794	2
Ob-Gyn	1272	3	1089	3	246	5	214	4	1518	3	1303	4
Ophthalmology	518	1	434	1	198	4	212	4	716	2	646	2
Orthopedics	317	1	198	1	86	2	77	2	403	1	275	1
Otolaryngology	343	1	303	1	101	2	102	2	444	1	405	1
Pediatrics	3266	8	2700	8	433	8	385	8	3699	8	3085	8
Physical Med. & Rehab.	504	1	476	2	73	1	85	2	577	1	561	2
Psychiatry	3826	10	3246	10	1029	20	1159	24	4855	11	4005	12
Public Health & Prev. Med.	993	2	1046	3	143	3	139	3	1136	3	1185	3
Radiology	2366	6	1798	6	192	4	176	4	2558	6	1974	5
Surgery	3360	9	2795	9	720	14	602	12	4080	9	3397	9
(Total Clinical Science)	(27208)	(70)	(21862)	(67)	(4496)	(85)	(4171)	(87)	(31704)	(71)	(26033)	(70)
OTHER	1959	5	1741	5	320	6	145	3	2279	5	1885	5
TOTAL	39088	100	32439	99	5270	100	4801	100	44358 ²	99	37240 ²	100

¹Includes departments of Biometry, Biophysics, Genetics, and Molecular Biology.

²Excludes 720 of 45078 1976-77 faculty (1.6%) and 565 of 7809 1971-72 faculty (1.5%) whose department or type of employment is unknown.

for this report, so totals for faculty affiliated with Basic Science departments reflect characteristics of an undetermined number of clinicians.

The distribution of all salaried faculty across academic departments in 1976-77 remained within 1 percent of the figures for 1971-72 faculty by departments. In each year, departments of Medicine far exceeded all other major academic departments in size (18 percent of 1976-77 faculty). Other departments with relatively high percentages of faculty include Psychiatry (11 percent in 1976-77), Surgery (9 percent), and Pediatrics (8 percent). Departments of Biochemistry, Pathology, Anesthesiology, and Radiology each accounted for from 4 to 6 percent of all 1976-77 salaried faculty. The numbers of faculty in departments of Family Practice more than doubled between 1971-72 and 1976-77 (322 vs. 847 faculty), although the percentage of the total faculty remained very low (1 vs. 2 percent).

Basic Science departments accounted for 23 percent of all faculty in 1976-77, down slightly from 25 percent of all faculty in 1971-72. A greater percentage of full-time faculty than part-time faculty were in Basic Science departments (25 percent vs. 9 percent in 1976-77), a contrast which was consistent for all departments within the Basic Sciences list. On the other hand, a higher percentage of part-time faculty were in Clinical Science departments (85 percent in 1976-77, compared to 70 percent of full-time faculty). This difference was due mainly to the greater involvement of part-time faculty in departments of Psychiatry (20 percent of part-time faculty, compared with 10 percent of full-time faculty), and Surgery (14 percent of part-time faculty vs. 9 percent of full-time faculty). Full-time and part-time faculty were similar in their distribution in the other clinical departments.

Table 6A shows the percentage distribution of ranks within each academic department, for full-time 1976-77 faculty. Overall, Basic Science departments had higher percentages of professors than did clinical departments (31 vs. 23 percent), and higher percentages of faculty employed in the three highest ranks than did Clinical Science departments (86 vs. 76 percent).

All of the Basic Science departments listed had similar percentages of full-time faculty employed in the three highest rank categories (ranging from 81 to 89

TABLE 6A

DISTRIBUTION OF FULL-TIME MEDICAL SCHOOL FACULTY
BY RANK, WITHIN MAJOR ACADEMIC DEPARTMENTS
(1976-1977)

DEPARTMENTS	PERCENTAGE DISTRIBUTION OF FULL-TIME FACULTY RANKS, WITHIN DEPARTMENT							Total Number of Full-Time Faculty ²
	Percent Professor	Percent Associate Professor	Percent Assistant Professor	Percent Instructor	Percent Clinical Ranks	Percent Lecturer Or Other	Total Percent	
BASIC SCIENCE								
Anatomy	29	25	33	4	*	8	99	1377
Biochemistry	35	28	24	2	0	11	100	1531
Microbiology	33	25	30	4	*	8	100	1258
Pathology	27	22	32	10	3	6	99	2680
Pharmacology	34	25	28	4	0	10	101	1103
Physiology	33	26	30	3	*	8	100	1427
Other Basic Science ¹	31	24	31	7	0	7	100	541
(Total Basic Science)	(31)	(25)	(30)	(5)	(1)	(8)	(100)	(9917)
CLINICAL SCIENCE								
Anesthesiology	17	15	41	17	6	5	101	1458
Dermatology	30	24	26	6	5	9	100	219
Family Practice	16	21	34	16	9	4	100	640
Medicine	24	22	33	10	5	7	101	7213
Neurology	27	19	32	11	2	8	100	904
Ob-Gyn	24	23	33	12	3	5	100	1272
Ophthalmology	26	22	32	8	5	8	101	518
Orthopedics	25	16	33	11	6	8	99	317
Otolaryngology	26	23	28	11	5	6	99	342
Pediatrics	23	21	36	11	4	6	101	3262
Physical Med. & Rehab.	18	14	28	22	8	9	99	504
Psychiatry	19	18	34	14	6	8	99	3820
Public Health & Prev. Med.	23	20	29	14	4	10	100	991
Radiology	20	19	34	13	6	7	99	2366
Surgery	31	22	29	7	4	6	99	3358
(Total Clinical Science)	(23)	(20)	(33)	(12)	(5)	(7)	(100)	(27184)
OTHER	26	19	29	17	1	8	-	1943
TOTAL	Percent							
	25	21	32	10	4	7	99	-

¹Includes departments of Biometry, Biophysics, Genetics, and Molecular Biology.

²Excludes 131 of 39175 full-time faculty (0.3%) whose department or rank is unknown.

percent). Among the Clinical Sciences, departments of Surgery had the highest percentage of full-time faculty employed at the ranks of professor, associate professor, or assistant professor (82 percent), followed by departments of Dermatology, Ob-Gyn, Ophthalmology, and Pediatrics, with 80 percent of each department's full-time faculty being employed at the three highest ranks. These ranks accounted for between 71 and 79 percent of full-time faculty in all other clinical departments except Physical Medicine and Rehabilitation which had the lowest percentage of full-time faculty employed at the rank of assistant professor or higher (60 percent), and the highest percentage of instructors (22 percent) of all the academic departments listed.

Table 6B shows the distribution of ranks within academic departments, for part-time 1976-77 faculty. As was the case for full-time faculty (Table 6A), Basic Science departments had higher percentages of faculty employed in the three highest ranks than did Clinical Science departments (46 vs. 31 percent). Basic Science departments as a group also had higher percentages of part-time faculty in the lecturer-or-other rank than did clinical departments (24 vs. 6 percent). Clinical Sciences had far greater percentages of part-time faculty in clinical ranks than did Basic Science departments (54 vs. 20 percent), a contrast which was much greater than among full-time faculty.

Within the Basic Science departments listed, departments of Pharmacology and of Physiology had the highest percentages of part-time faculty employed at the ranks of assistant professor or higher (Pharmacology, 53 percent; Physiology, 51 percent); departments of Biochemistry had the lowest rate, 37 percent. Departments of Pathology had a particularly high percentage of part-time faculty with clinical ranks (36 percent) and a particularly low percentage of lecturers-or-other faculty (11 percent). Over half (55 percent) of part-time faculty in departments of Biochemistry were employed in the lecturer-or-other rank category, the highest percent of all Basic Science departments.

Among the 15 clinical departments listed, departments of Physical Medicine and Rehabilitation had the highest percentage of part-time faculty employed in ranks of professor, associate professor, or assistant professor (47 percent), while Ophthalmology (26 percent), Dermatology (23 percent), and Orthopedics (20 percent) had the

TABLE 6B

DISTRIBUTION OF PART-TIME MEDICAL SCHOOL FACULTY
BY RANK, WITHIN MAJOR ACADEMIC DEPARTMENTS
(1976-77)

DEPARTMENTS	PERCENTAGE DISTRIBUTION OF FULL-TIME FACULTY RANKS, WITHIN DEPARTMENTS							TOTAL NUMBER OF FULL-TIME FACULTY ²
	Percent Professor	Percent Associate Professor	Percent Assistant Professor	Percent Instructor	Percent Clinical Rank	Percent Lecturer Or Other	Total Percent	
BASIC SCIENCE								
Anatomy	9	12	26	15	18	20	100	66
Biochemistry	12	10	15	5	2	55	99	40
Microbiology	16	16	8	8	10	41	99	49
Pathology	14	12	18	9	36	11	100	185
Pharmacology	9	13	31	6	1	34	99	32
Physiology	12	12	27	9	3	36	99	64
Other Basic Science ¹	17	0	50	17	6	11	101	18
(Total Basic Science)	(13)	(12)	(21)	(9)	(20)	(24)	(99)	(454)
CLINICAL SCIENCE								
Anesthesiology	8	6	25	4	49	8	100	77
Dermatology	3	10	10	5	65	7	100	60
Family Practice	3	5	24	11	51	5	99	204
Medicine	7	8	16	9	55	6	101	854
Neurology	9	6	27	13	37	9	101	79
Ob-Gyn	6	9	14	11	58	3	101	245
Ophthalmology	6	7	13	4	67	4	101	198
Orthopedics	5	3	12	6	70	5	101	86
Otolaryngology	12	8	11	6	61	2	100	101
Pediatrics	4	9	17	12	48	9	99	431
Physical Med. & Rehab.	7	14	26	8	33	12	100	73
Psychiatry	5	7	17	6	58	6	99	1026
Public Health & Prev. Med.	8	13	25	10	31	13	100	142
Radiology	9	9	18	6	47	12	101	192
Surgery	8	9	18	5	56	3	99	718
(Total Clinical Science)	(6)	(8)	(17)	(8)	(54)	(6)	(99)	(4486)
OTHER	5	6	19	16	44	10	100	319
TOTAL Percent	7	8	18	8	51	8	-	-

¹Includes departments of Biometry, Biophysics, Genetics and Molecular Biology.

²Excludes 26 of 5285 part-time faculty (0.5%) whose department or rank is unknown.

lowest percentages of part-time faculty employed in the three highest ranks.

About two-thirds of part-time faculty in departments of Dermatology, Ophthalmology and Orthopedics had clinical rank titles.

Since full-time faculty are the major resource of U.S. medical schools, and indeed, constitute 90 percent of salaried faculty (Tables 2, 3), the majority of the remainder of this report will focus on salaried faculty holding full-time appointments in U.S. medical schools as of January 1977.

D. Primary Specialties

While academic department is a major descriptor of faculty from an administrative standpoint, primary specialty describes the major area or discipline of a faculty member's current activities. Thus, area of specialization provides a supplementary basis for analysis of the actual field of faculty activity.

Table 7 shows the relationship between academic departments and primary specialties, giving the percentage distribution across 33 specialties for full-time faculty in each of the major academic departments. The percentages given for each department indicate the extent to which the department is inter-disciplinary in terms of the fields of specialization of its faculty.

It can be seen that departments of Biochemistry, Anesthesiology, and Orthopedics are the most homogeneous, with 90 percent or more of the full-time faculty in these departments reporting a primary specialty identical with the name of the department. Also quite homogeneous in this respect are departments of Anatomy, Pharmacology, Physiology, Dermatology, Ob-Gyn, Ophthalmology, Pediatrics, Radiology, and Surgery -- each with between 77 and 84 percent of its full-time faculty reporting a primary specialty identical with or closely allied to the department name.

(1976-1977)

ACADEMIC DEPARTMENTS	PERCENT OF DEPARTMENT HAVING EACH PRIMARY SPECIALTY																														Total Number of Full-Time Faculty in Department ²					
	BASIC SCIENCE SPECIALTIES										CLINICAL SCIENCE SPECIALTIES																									
	Anatomy	Biochemistry	Biology	Biophysics	Genetics	Immunology	Micro-Parasitology	Pathology-Basic	Pharmacology	Physiology	All Other	Anesthesiology	Dermatology	Endocrinology	Family Practice	Internal Medicine	General Medicine	Nuclear Medicine	Neurology	Ob-Gyn	Pathology-Clin.	Pediatrics	Phys. Med. & Rehab.	Psychiatry	Public Health and Preventive Medicine	Radiology	Surgery	All Other	Physical Sciences and Eng.	Behavioral and Social Sciences		Allied Health	Administration	Other	Total Percent for Department (Row)	
BASIC SCIENCE																																		Count		
Anatomy	81	7	2	•	1	•	•	•	3	•	0	0	1	0	•	0	•	•	•	•	•	0	0	0	•	•	•	•	•	1	•	1	•	•	99	(1362)
Biochemistry	•	90	•	1	2	1	•	0	•	•	0	0	1	0	1	•	0	0	0	0	•	0	0	0	•	•	0	0	0	2	•	•	•	•	100	(1512)
Microbiology	•	10	•	•	5	11	65	•	1	1	•	0	0	0	2	1	0	0	0	1	•	0	0	•	•	•	0	0	1	•	1	0	0	•	100	(1244)
Pathology	•	6	•	•	1	2	3	56	1	1	•	0	0	•	•	1	•	•	•	•	22	1	0	0	•	•	•	•	2	0	4	•	•	•	100	(2614)
Pharmacology	•	9	1	•	•	•	1	0	80	3	•	0	0	1	0	2	1	0	•	0	•	0	0	•	0	0	•	•	2	•	1	•	•	0	101	(1081)
Physiology	1	5	•	4	•	•	0	•	2	78	•	•	0	3	0	1	•	1	•	•	•	•	0	•	0	•	•	0	3	1	1	•	0	99	(1409)	
Other Basic Science	6	23	3	9	18	1	2	•	2	3	0	•	0	1	0	1	1	1	•	1	0	1	0	0	•	•	•	25	1	1	•	•	•	101	(534)	
CLINICAL SCIENCE																																				
Anesthesiology	•	•	0	•	0	•	0	•	1	1	0	94	0	0	0	1	•	0	0	•	0	•	0	0	0	0	•	•	1	•	1	0	•	•	100	(1436)
Dermatology	•	9	1	•	1	•	3	1	0	•	0	0	77	•	0	3	1	1	0	0	0	•	0	0	0	0	0	0	1	0	0	0	0	0	100	(217)
Family Practice	•	0	0	•	•	0	1	•	0	0	•	0	•	0	51	5	3	0	0	1	•	2	0	1	10	0	1	2	2	12	4	4	2	101	(629)	
Medicine ³	•	2	•	•	1	1	•	•	1	1	•	•	1	4	•	68	13	•	1	0	2	•	•	•	1	•	•	1	1	1	1	•	•	•	101	(7104)
Neurology	1	4	1	•	•	0	•	•	1	3	0	0	0	0	0	1	1	0	72	0	2	6	0	1	•	0	1	0	2	3	1	0	•	•	101	(877)
Ob-Gyn	•	4	1	•	1	1	0	•	•	2	•	•	0	2	0	•	•	0	0	83	•	•	0	0	1	0	0	1	1	1	1	•	•	•	100	(1243)
Ophthalmology	1	7	1	1	0	•	2	•	0	3	0	0	0	0	0	•	1	0	•	0	•	0	0	0	•	78	•	2	1	2	0	1	•	•	101	(512)
Orthopedics	0	2	•	1	0	0	0	•	0	0	•	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	3	0	1	0	0	0	100	(313)	
Otolaryngology	2	•	•	0	0	1	0	0	1	5	0	0	0	0	0	0	0	0	1	0	•	0	0	0	0	0	61	0	1	4	24	0	0	100	(337)	
Pediatrics	•	2	•	•	2	1	1	•	•	•	•	•	0	1	0	2	•	•	•	•	•	79	•	1	•	•	•	•	1	6	3	•	•	•	101	(3207)
Phys. Med. & Rehab.	0	1	•	•	0	0	0	0	0	2	•	•	0	0	0	1	1	0	•	0	1	56	•	•	0	•	•	4	7	24	1	•	•	93	(498)	
Psychiatry	•	1	•	•	•	0	0	0	1	1	0	0	0	•	•	•	•	0	•	•	0	•	•	59	•	0	•	•	1	33	1	1	•	•	100	(3745)
Public Health & Prev. Med.	0	1	•	•	1	•	2	1	1	1	2	•	•	3	7	2	•	0	•	•	4	1	•	32	0	1	2	10	10	9	6	3	100	(948)		
Radiology	•	1	•	1	•	•	0	0	•	•	•	0	0	•	0	1	•	9	0	•	•	2	0	0	0	79	•	•	5	•	1	•	•	•	100	(2330)
Surgery	•	2	•	•	•	•	1	•	•	1	•	1	0	•	•	1	•	•	•	•	1	•	•	•	•	•	84	2	2	•	3	•	•	•	100	(3303)
OTHER	2	3	1	•	1	•	2	2	1	4	1	•	•	•	1	5	3	•	1	1	1	2	•	1	1	•	2	1	4	10	35	9	6	100	(1905)	

³Includes General Medicine and Internal Medicine.

Only one Basic Science department is seen to be inter-disciplinary¹. Departments of Microbiology include considerable percentages of full-time faculty involved in Biochemistry, Genetics, and Immunology specialties, in addition to the 65 percent listing Micro-Parasitology as their primary specialty.

Several Clinical Science departments, on the other hand, can be seen to draw faculty from multiple specialty areas: Only 51 percent of full-time faculty in departments of Family Practice listed Family Practice as their primary specialty; the remainder listed other specialty areas including, primarily, Internal Medicine, General Medicine, Public Health and Preventive Medicine, and disciplines in the Behavioral and Social Sciences. Departments of Neurology consist of 72 percent Neurologists in addition to a few percent each from Biochemistry, Physiology, Pediatrics, and the Behavioral and Social Science disciplines. Departments of Otolaryngology consist of 61 percent Surgeons, plus 24 percent of full-time faculty from Allied Health disciplines and a few percent each from Physiology and the Behavioral and Social Science disciplines. Departments of Physical Medicine and Rehabilitation draw 24 percent of their full-time faculty from Allied Health disciplines, 7 percent from the Behavioral and Social Sciences, and 4 percent from Physical Sciences -- in addition to the 56 percent with PM & R as their primary specialty. Departments of Psychiatry include 33 percent of full-time faculty from Behavioral & Social Science disciplines in addition to the 59 percent Psychiatry specialists. Public Health and Preventive Medicine is the most inter-disciplinary of all the academic departments, with only 32 percent of full-time faculty listing Public Health and Preventive Medicine as their primary specialty, and the remainder coming from Physical Sciences, Behavioral and Social Sciences, Allied Health, Family Practice, Internal Medicine, Pediatrics, Administration, and "Other" specialties or disciplines.

¹Departments of Pathology show 56 percent of full-time faculty having Basic Pathology as their primary specialty, and 22 percent with a Clinical Pathology specialty. This probably reflects the current decision to code all Pathology departments with Basic Sciences in the Faculty Roster system, rather than indicating the inter-disciplinary nature of Pathology departments.

Table 8 displays the distribution of full-time medical school faculty across the 33 primary specialties that were seen in Table 7. The percentage of 1976-77 faculty in each primary specialty is within 1 percent of the figure for 1971-72 faculty, with 2 exceptions: Between 1971-72 and 1976-77 the percentage of full-time faculty in Internal Medicine increased from 11 percent to 14 percent, while the percentage of faculty in General Medicine decreased from 5 percent to 3 percent. The changes in percentages of faculty in these two specialties may simply reflect a change in the data coding policy for the Faculty Roster System since, beginning in 1974, the General Medicine specialty was updated to Internal Medicine if a person showed a board certification in Internal Medicine.

Although the percentage of full-time faculty with Family Practice as their primary specialty increased only slightly over the five-year period (from 0.3 percent to 1.0 percent), the number of Family Practice specialists increased almost five-fold, from 82 full-time faculty in 1971-72, to 396 full-time faculty in 1976-77.

The distribution across primary specialties is also shown, in Table 8, for 1976-77 full-time faculty grouped by their highest earned degree. All Basic Science specialties taken together accounted for 27 percent of 1976-77 full-time faculty, including 35 percent of M.D.-Ph.D.'s, 9 percent of M.D.'s, 66 percent of Ph.D./O.H.D.'s, and 12 percent of non-doctoral faculty. Biochemistry was the largest of the Basic Science specialties, accounting for 7 percent of all full-time faculty and 22 percent of the Ph.D./O.H.D. group.

The Clinical Science specialties, indicated by 61 percent of all full-time faculty in 1976-77, accounted for 63 percent of M.D.&Ph.D.'s, 90 percent of M.D.'s, 10 percent of Ph.D./O.H.D.'s, and 18 percent of non-doctoral faculty. Within these specialties, Internal Medicine was the largest (14 percent of all full-time faculty, and 22 percent of M.D. faculty), followed by Surgery (10 percent of all full-time faculty, and 14 percent of M.D. & Ph.D.'s or M.D.'s) and Pediatrics (7 percent of the total, and 12 percent of M.D.'s).

Fewer than one percent of M.D. & Ph.D. or M.D.-only faculty had primary specialties in Behavioral and Social Science or Allied Health fields. These two discipline groups accounted for 16 percent of Ph.D./O.H.D.

TABLE 8
DISTRIBUTION OF FULL-TIME MEDICAL SCHOOL FACULTY BY PRIMARY SPECIALTY, WITHIN DEGREE TYPE
(1975-76, WITH 1971-72 TOTALS)

PRIMARY SPECIALTY	1976-77 DEGREE TYPE								1976-77 TOTAL FULL-TIME FACULTY		1971-72 TOTAL FULL-TIME FACULTY	
	M.O. & Ph.D.		M.D.		Ph.D./O.H.D.		Non-Doctoral		Count Percent of Total		Count Percent of Total	
	Count	Percent of Degree	Count	Percent of Degree	Count	Percent of Degree	Count	Percent of Degree				
BASIC SCIENCE												
Anatomy	91	5	99	*	1022	10	37	1	1249	3	1155	4
Biochemistry	103	5	126	1	2314	22	79	3	2622	7	2249	7
Biology, All	5	*	17	*	112	1	16	*	150	*	107	*
Biophysics	6	*	6	*	165	2	10	*	187	1	167	1
Genetics	20	1	71	*	243	2	15	1	349	1	306	1
Immunology	16	1	52	*	234	2	11	*	313	1	213	1
Micro-Parasitology	44	2	108	1	853	8	73	3	1078	3	989	3
Pathology-Basic	160	6	1179	5	170	2	38	1	1547	4	1516	5
Pharmacology	115	6	177	1	798	7	18	1	1108	3	983	3
Physiology	127	6	232	1	1142	11	33	1	1534	4	1369	4
All Other	5	*	2	*	55	1	24	1	86	*	99	*
(Total Basic Science)	(92)	(35)	(2069)	(9)	(7108)	(66)	(354)	(12)	(10223)	(27)	(9153)	(29)
CLINICAL SCIENCE												
Anesthesiology	67	3	1288	6	19	*	13	1	1387	4	1007	3
Dermatology	13	1	206	1	11	*	1	*	231	1	201	1
Endocrinology	24	1	236	1	121	1	8	*	389	1	301	1
Family Practice	6	*	375	2	6	*	9	*	396	1	82	*
Internal Medicine	276	14	4906	22	64	1	24	1	5270	14	3489	11
General Medicine	69	4	1014	4	18	*	11	*	1112	3	1521	5
Nuclear Medicine	26	1	127	1	87	1	22	1	262	1	205	1
Neurology	53	3	690	3	19	*	7	*	769	2	626	2
Ob-Gyn	54	3	971	4	20	*	18	1	1063	3	918	3
Pathology-Clinical	54	3	540	2	120	1	41	1	755	2	633	2
Pediatrics	100	5	3632	12	49	1	39	1	2820	7	2201	7
Physical Med. & Rehab.	13	1	276	1	18	*	26	1	333	1	296	1
Psychiatry	79	4	2054	9	94	1	58	2	2285	6	1870	6
Public Health & Prev. Med.	43	2	243	1	111	1	90	3	487	1	457	1
Radiology	64	3	1543	7	179	2	88	3	1874	5	1428	4
Surgery	283	14	3307	14	88	1	44	2	3722	10	3080	10
All Other	31	2	150	1	59	1	10	*	250	1	160	1
(Total Clinical Science)	(1255)	(63)	(20558)	(90)	(1083)	(10)	(509)	(18)	(23405)	(61)	(18475)	(58)
PHYSICAL SCIENCE & ENGINEERING	14	1	30	*	557	5	213	8	814	2	708	2
BEHAVIORAL & SOCIAL SCIENCE	8	*	12	*	1344	12	565	20	1929	5	1785	6
ALL-0 HEALTH	5	*	14	*	487	4	937	33	1443	4	1371	4
ADMINISTRATION	6	*	57	*	73	1	163	6	299	1	332	1
OTHER	3	*	10	*	100	1	96	3	209	1	141	*
TOTAL FULL-TIME FACULTY	(1983)	(100)	(22750)	(100)	(10752)	(99)	(2837)	(100)	(38322)¹	(101)	(31665)²	(100)

¹Excludes 853 of 39175 full-time faculty (2.2%) whose primary specialty or degree type is unknown.

²Excludes 506 of 32471 full-time faculty (1.6%) whose primary specialty is unknown.

faculty, however, and for 53 percent of non-doctoral faculty.

Table 9 shows the distribution of full-time 1971-72 and 1976-77 faculty grouped by primary specialty or discipline, with percentages by specialty groups (rows) as well as by degree types (columns). Between 1971-72 and 1976-77 the percentage of full-time faculty in Basic Science specialties decreased slightly, from 29 to 27 percent; this shift was seen within each degree group as well as for the total. During the same period there was a slight increase in the percentage of faculty in Clinical Science specialties, from 58 to 61 percent -- a shift that was also consistent across all degree groups. Other specialty or discipline groups accounted for the same percentage of full-time faculty in 1976 as in 1971-72: Physical Sciences, 2 percent; Behavioral and Social Sciences, 5 percent (6 percent in 1971-72); Allied Health, 4 percent; Administration, 1 percent, and "Other" specialties, fewer than half of 1 percent of all full-time faculty.

The "percent of specialty" figures in Table 9 show the relative contribution of the four degree groups to each primary specialty group. It can be seen that Ph.D./O.H.D. faculty accounted for 70 percent of all Basic Science specialties in 1976-77 (up slightly from 65 percent in 1971-72), while M.D. faculty accounted for another 20 percent of Basic Science specialties.

As might be expected, 93 percent of full-time faculty in Clinical Science specialties in each time period were M.D.'s (M.D. & Ph.D. plus M.D.-only categories combined).

About two-thirds of 1976-77 faculty in Physical Science or in Behavioral and Social Science disciplines were Ph.D./O.H.D.'s with nearly all of the remaining third of these specialty groups being comprised of non-doctoral faculty. The Allied Health specialty group was comprised about one-third of Ph.D./O.H.D.'s, and two-thirds of non-doctoral faculty. Administration was comprised of 54 percent non-doctoral faculty, 24 percent Ph.D./O.H.D.'s, and 19 percent M.D.'s. "Other" disciplines were composed about evenly of Ph.D./O.H.D. and non-doctoral faculty.

Between 1971-72 and 1976-77, the Ph.D./O.H.D. faculty constituted increasing percentages of the

TABLE 9

DISTRIBUTION OF FULL-TIME MEDICAL SCHOOL FACULTY
BY GROUPED PRIMARY SPECIALTY AND DEGREE TYPE
(1976-77 AND 1971-72)

GROUPED PRIMARY SPECIALTY		DEGREE TYPE								TOTAL FULL-TIME FACULTY	
		M.D. & Ph.D.		M.D.		Ph.D./O.H.D.		Non-Doctoral			
		1976-77	1971-72	1976-77	1971-72	1976-77	1971-72	1976-77	1971-72	1976-77	1971-72
BASIC SCIENCE	Count	692	719	2069	2099	7108	5899	354	402	10223	9119
	Percent of Specialty	7	8	20	23	70	65	4	4	101	100
	Percent of Degree	35	39	9	12	66	68	12	14	27	29
CLINICAL SCIENCE	Count	1255	1085	20558	16081	1083	810	509	448	23405	18424
	Percent of Specialty	5	6	88	87	5	4	2	2	100	99
	Percent of Degree	63	59	90	88	10	9	18	15	61	58
PHYSICAL SCIENCE	Count	14	10	30	26	557	422	213	245	814	703
	Percent of Specialty	2	1	4	4	68	60	26	35	100	100
	Percent of Degree	1	1	*	*	5	5	8	8	2	2
BEHAVIORAL AND SOCIAL SCIENCE	Count	8	7	12	16	1344	1092	565	665	1929	1780
	Percent of Specialty	*	*	1	1	70	61	29	37	100	99
	Percent of Degree	*	*	*	*	12	12	20	22	5	6
ALLIED HEALTH	Count	5	1	14	14	487	377	937	958	1443	1350
	Percent of Specialty	*	*	1	1	34	28	65	71	100	100
	Percent of Degree	*	*	*	*	5	4	33	32	4	4
ADMINISTRATION	Count	6	10	57	78	73	61	163	182	299	331
	Percent of Specialty	2	3	19	24	24	18	54	55	99	100
	Percent of Degree	*	*	*	*	1	1	6	6	1	1
OTHER	Count	3	2	10	9	100	57	96	72	209	140
	Percent of Specialty	1	1	5	6	48	41	46	51	100	99
	Percent of Degree	*	*	*	*	1	1	3	2	*	*
TOTAL FULL-TIME FACULTY	Count	1983	1834	22750	18323	10752	8718	2837	2972	38322 ¹	31847
	Percent of Total	5	6	59	58	28	27	7	9	99	100
	Percent of Degree	100	100	100	101	100	100	100	99	100	100

¹Excludes 853 of 39175 1976-77 full-time faculty (2.2%) and 624 of 32471 1971-72 full-time faculty (1.9%) whose primary specialty or degree type is unknown

Physical Sciences, Behavioral and Social Sciences, Allied Health, Administration, and "Other" disciplines. In all of these groups except Administration, the percentage of non-doctoral faculty decreased over the same five-year period.

IV. AREAS OF RESPONSIBILITY

The Faculty Roster System includes data on the involvement of each faculty member in five major areas of responsibility; namely, teaching, research, patient care, administration, and "other."

A. Number of Areas of Responsibility

Table 10 shows the number of areas of responsibility of full-time 1976-77 faculty, within rank and degree type. Only 13 percent of all faculty were engaged in a single major area of responsibility; 38 percent were involved in two areas; 34 percent in three areas; 15 percent in four areas; and 1 percent in all five areas of responsibility. The median number of areas of responsibility for the total full-time faculty population in 1976-1977 was 2.

The percentage figures in Table 10 show that the number of areas of responsibility of faculty varies with rank as well as with degree type. Sixty-three percent of professors were involved in three or more areas of responsibility, as were 52 percent of associate professors, 47 percent of assistant professors, 34 percent of instructors, and 28 percent of lecturers and other ranks. These figures show a marked increase in the number of areas of responsibility for ascending academic ranks. Forty-four percent of faculty with clinical rank titles were involved in at least three major areas of responsibility.

Within each rank, more faculty with M.D. degrees were involved in three or more areas of responsibility than were faculty with Ph.D. or other health doctorates, or non-doctoral degrees.

B. Areas of Responsibility

Table 11 shows the single and combined areas of responsibility of full-time faculty, by degree types. The M.D. & Ph.D. plus M.D.-only group had the lowest rate of faculty involvement in just one major area of responsibility (9 percent). Sixteen percent of Ph.D./O.H.D.'s and 35 percent of nondoctoral faculty were involved in just one major activity. Sixty-three percent of all M.D. faculty were engaged in

TABLE 10

DISTRIBUTION OF FULL-TIME MEDICAL SCHOOL FACULTY
BY NUMBER OF AREAS OF RESPONSIBILITY, WITHIN RANK AND DEGREE TYPE
(1976-77)

RANK AND DEGREE	NUMBER OF AREAS OF RESPONSIBILITY										TOTAL FULL-TIME FACULTY	
	ONE		TWO		THREE		FOUR		FIVE		Count	Percent of Rank & Degree
	Count	Percent of Rank & Degree	Count	Percent of Rank & Degree	Count	Percent of Rank & Degree	Count	Percent of Rank & Degree	Count	Percent of Rank & Degree		
Professor												
M.D. & Ph.D.	52	6	245	27	348	39	238	27	13	2	896	101
M.D.	408	7	1227	20	2278	37	2221	36	88	1	6222	101
Ph.D./O.H.D.	209	8	1398	54	800	31	190	7	14	1	2611	101
Non-Doctoral	19	27	22	31	24	34	4	6	1	1	70	99
(Total)	(688)	(7)	(2892)	(30)	(3450)	(35)	(2653)	(27)	(116)	(1)	(9799)	(100)
Associate Professor												
M.D. & Ph.D.	31	7	180	38	187	40	67	14	3	1	468	100
M.D.	348	7	1174	25	2191	46	998	21	32	1	4743	100
Ph.D./O.H.D.	259	9	1844	67	505	18	129	5	4	*	2741	99
Non-Doctoral	59	28	72	34	57	27	20	10	2	1	210	100
(Total)	(697)	(9)	(3270)	(40)	(2940)	(36)	(1214)	(15)	(41)	(1)	(8162)	(101)
Assistant Professor												
M.D. & Ph.D.	33	8	129	32	195	48	43	11	2	1	402	100
M.D.	541	7	2267	31	3486	48	1002	14	30	*	7326	100
Ph.D./O.H.D.	576	16	2403	65	581	16	138	4	10	*	3708	101
Non-Doctoral	196	28	285	41	168	24	37	5	7	1	693	99
(Total)	(1346)	(11)	(5084)	(42)	(4430)	(37)	(1220)	(10)	(49)	(*)	(12129)	(100)
Instructor												
M.D. & Ph.D.	11	27	7	17	20	49	3	7	0	0	41	100
M.D.	310	16	762	40	700	37	125	7	2	*	1899	100
Ph.D./O.H.D.	148	23	258	49	101	19	18	2	1	*	526	99
Non-Doctoral	391	34	476	42	215	19	47	4	5	*	1134	99
(Total)	(860)	(24)	(1503)	(42)	(1036)	(29)	(193)	(5)	(8)	(*)	(3600)	(100)
Clinical Ranks												
M.D. & Ph.D.	4	11	13	36	11	31	8	22	0	0	36	100
M.D.	194	16	476	39	435	36	111	9	7	1	1223	101
Ph.D./O.H.D.	22	23	40	41	24	25	10	10	1	1	97	100
Non-Doctoral	27	29	33	36	25	27	8	9	0	0	93	101
(Total)	(247)	(17)	(562)	(39)	(495)	(34)	(137)	(9)	(8)	(1)	(1449)	(100)
Lecturer and Other												
M.D. & Ph.D.	36	32	27	24	41	36	10	9	0	0	114	101
M.D.	123	14	248	28	419	48	91	10	1	*	882	100
Ph.D./O.H.D.	463	43	510	47	89	8	15	1	0	0	1077	99
Non-Doctoral	325	46	252	36	100	14	32	4	0	0	709	100
(Total)	(947)	(34)	(1037)	(37)	(619)	(23)	(148)	(5)	(1)	(*)	(2782)	(100)
TOTAL FULL-TIME FACULTY	4785	13	14343	38	13000	34	5565	15	223	1	37921¹	101

¹Excludes 1254 of 39,175 full-time faculty (3.2%) whose rank, degree type, or number of areas of responsibility is unknown.

TABLE 11
AREAS OF RESPONSIBILITY OF FULL-TIME MEDICAL SCHOOL FACULTY,
WITHIN DEGREE TYPE
(1976-77)

AREAS OF RESPONSIBILITY	DEGREE TYPE			TOTAL FULL-TIME FACULTY Percent of Total
	M.D. & Ph.D. or M.D. Only	Ph.D./O.H.D.	Non-Doctoral	
	Percent of Degree Type	Percent of Degree Type	Percent of Degree Type	
<u>ONE AREA OF RESPONSIBILITY</u>				
Teaching	4	3	12	4
Research	2	11	10	5
Patient Care	2	1	5	2
Administration	1	1	5	1
Other	*	*	3	*
(Total, One Area)	(9)	(16)	(35)	(13)
<u>TWO AREAS OF RESPONSIBILITY</u>				
Teaching and Research	8	54	10	21
Teaching and Patient Care	17	3	16	13
Teaching and Administration	2	1	7	2
Other Combinations of Two Areas	1	2	7	2
(Total, Two Areas)	(28)	(60)	(39)	(38)
<u>THREE AREAS OF RESPONSIBILITY</u>				
Teaching, Research and Patient Care	31	7	7	22
Teaching, Research, and Administration	4	10	3	5
Teaching, Patient Care and Administration	7	1	8	6
Other Combinations of Three Areas	1	2	3	1
(Total, Three Areas)	(42)	(20)	(20)	(34)
<u>FOUR AREAS OF RESPONSIBILITY</u>				
Teaching, Research, Patient Care, and Administration	20	4	4	14
Other Combinations of Four Areas	1	1	1	1
(Total, Four Areas)	(20)	(5)	(5)	(15)
<u>FIVE AREAS OF RESPONSIBILITY</u>				
Teaching, Research, Patient Care, Administration, and Other	1	*	1	1
TOTAL	Percent Count	100 (24278)	101 (10761)	100 (2924)
				101 (37963) ¹

¹ Excludes 1212 of 39175 full-time faculty (3.1%) whose areas of responsibility or degree type are unknown.

three or more areas of responsibility -- compared with 25 percent of Ph.D./O.H.D.'s, and 25 percent of non-doctoral faculty. Thus, it is evident that M.D. faculty perform a wider range of functions within the medical school than do other faculty, because of the greater involvement of M.D. faculty in patient care in addition to teaching and research responsibilities. Thirty-one percent of M.D. faculty were engaged in the combination of teaching, research, and patient care; an additional 20 percent of M.D.'s were involved in these three areas plus administrative duties. Sixty percent of Ph.D./O.H.D. faculty were involved in two areas of responsibility, 54 percent performing the combination of teaching and research. Thus, the modal pattern of responsibilities for M.D. faculty was teaching, research, and patient care; for Ph.D./O.H.D.'s it was teaching and research.

Table 12 breaks down the doctoral degree faculty discussed in Table 11 showing, in addition, these two degree groups by four categories of full-time employment. For both M.D.'s and Ph.D./O.H.D.'s, faculty in the GFT categories were involved in a wider range of responsibilities than were faculty with SFT employment. Among M.D.'s, GFTA faculty did not differ significantly from SFTA faculty in terms of numbers of areas of responsibility. Among Ph.D./O.H.D.'s, however, GFTA employees had somewhat more responsibilities than did SFTA faculty, and these responsibilities particularly involved patient care in addition to teaching, or in addition to teaching plus research.

Table 13 shows the areas of responsibility of full-time 1976-77 faculty by degree type (as in Table 11), and includes the further breakdown of faculty by type of academic department. It can be seen that, for each of the three degree groups, higher percentages of faculty in clinical departments than in Basic Science departments were involved in three or more areas of responsibility (for M.D.'s, 66 percent of faculty in clinical departments vs. 52 percent in Basic Science department; for Ph.D./O.H.D.'s, 34 percent vs. 18 percent; non-doctoral faculty, 30 percent vs. 17 percent).

The combination of teaching and research activities, with or without other areas of responsibility, was engaged in by faculty in Basic Science departments

TABLE 12

AREAS OF RESPONSIBILITY OF FULL-TIME DOCTORAL MEDICAL SCHOOL FACULTY,
WITHIN DEGREE TYPE AND NATURE OF EMPLOYMENT
(1976-77)

AREAS OF RESPONSIBILITY	PERCENT OF DEGREE AND EMPLOYMENT TYPE								TOTAL FULL-TIME DOCTORAL FACULTY	
	M.D. & Ph.D. or M.D. only				Ph.D.-O.H.D.					
	STRICT FULL-TIME		GEOGRAPHIC FULL-TIME		STRICT FULL-TIME		GEOGRAPHIC FULL-TIME			
	Medical School	Affil. Instit.	Medical School	Affil. Instit.	Medical School	Affil. Instit.	Medical School	Affil. Instit.		
	(SFT)	(SFTA)	(GFT)	(GFTA)	(SFT)	(SFTA)	(GFT)	(GFTA)		
<u>ONE AREA OF RESPONSIBILITY</u>										
Teaching	3	6	4	5	3	5	3	9	4	
Research	2	1	1	1	11	17	7	8	4	
Patient Care	2	4	1	6	*	2	2	1	2	
Administration	1	1	1	1	1	1	*	1	1	
Other	*	*	*	0	*	1	*	0	*	
(Total, One Area)	(8)	(11)	(7)	(12)	(15)	(26)	(12)	(18)	(11)	
<u>TWO AREAS OF RESPONSIBILITY</u>										
Teaching and Research	10	4	4	3	57	27	35	25	22	
Teaching and Patient Care	16	21	15	21	2	6	6	13	13	
Teaching and Administration	2	2	2	2	1	1	2	0	*	
Other Combinations of Two Areas	1	2	1	1	2	5	3	4	2	
(Total, Two Areas)	(29)	(29)	(23)	(28)	(63)	(39)	(45)	(42)	(38)	
<u>THREE AREAS OF RESPONSIBILITY</u>										
Teaching, Research, and Patient Care	32	28	32	25	6	13	18	18	23	
Teaching, Research, and Administration	4	2	2	2	10	6	10	5	5	
Teaching, Patient Care, and Administration	6	0	9	11	1	5	2	3	5	
Other Combinations of Three Areas	1	2	1	1	1	3	1	1	1	
(Total, Three Areas)	(43)	(41)	(44)	(38)	(18)	(26)	(31)	(27)	(35)	
<u>FOUR AREAS OF RESPONSIBILITY</u>										
Teaching, Research, Patient Care, and Administration	18	17	25	20	3	8	11	11	15	
Other Combinations of Four Areas	*	1	*	1	1	1	1	0	1	
(Total, Four Areas)	(19)	(18)	(26)	(21)	(4)	(9)	(12)	(11)	(16)	
<u>FIVE AREAS OF RESPONSIBILITY</u>										
Teaching, Research, Patient Care, Administration, and Other	1	1	1	1	*	*	*	2	1	
TOTAL	Percent (Count)	100 (13880)	100 (4258)	101 (4557)	100 (1548)	100 (9337)	99 (573)	100 (651)	100 (186)	100 (34990)

TABLE 13

AREAS OF RESPONSIBILITY OF FULL-TIME MEDICAL SCHOOL FACULTY,
-- WITHIN BASIC/CLINICAL DEPARTMENTS AND DEGREE TYPE
(1976-77)

AREAS OF RESPONSIBILITY	PERCENT OF DEPARTMENT AND DEGREE TYPE						TOTAL FULL-TIME FACULTY	
	BASIC SCIENCE DEPARTMENTS			CLINICAL SCIENCE DEPARTMENTS				
	M.D. & Ph.D. or M.D.-only	Ph.D./O.H.D.	Non- Doctoral	M.D. & Ph.D. or M.D.-only	Ph.D./O.H.	Non- Doctoral		
ONE AREA OF RESPONSIBILITY								
Teaching	5	3	18	4	2	8	4	
Research	4	8	18	1	18	11	5	
Patient Care	1	*	1	2	1	6	2	
Administration	*	*	3	1	1	3	1	
Other	*	*	2	*	*	1	*	
(Total, One Area)	(10)	(11)	(42)	(8)	(23)	(20)	(12)	
TWO AREAS OF RESPONSIBILITY								
Teaching and Research	27	69	24	5	33	9	21	
Teaching and Patient Care	8	1	8	18	6	20	13	
Teaching and Administration	1	1	5	2	1	6	2	
Other Combinations of Two Areas	2	1	5	1	4	7	2	
(Total, Two Areas)	(38)	(71)	(40)	(26)	(44)	(41)	(38)	
THREE AREAS OF RESPONSIBILITY								
Teaching, Research and Patient Care	22	3	3	32	14	10	23	
Teaching, Research and Administration	11	11	3	2	7	3	5	
Teaching, Patient Care and Administration	3		5	8	2	9	6	
Other Combinations of Three Areas	1	1	2	1	2	2	1	
(Total, Three Areas)	(37)	(16)	(13)	(44)	(25)	(24)	(35)	
FOUR AREAS OF RESPONSIBILITY								
Teaching, Research, Patient Care and Administration	14	2	4	21	7	5	14	
Other Combinations of Four Areas	*	*	*	1	1	1	1	
(Total, Four Areas)	(14)	(2)	(4)	(21)	(8)	(6)	(15)	
FIVE AREAS OF RESPONSIBILITY								
Teaching, Research, Patient Care Administration, and Other	1	*	0	1	1	*	(1)	
TOTAL	Percent (Count)	101 (2963)	100 (6284)	59 (478)	100 (20868)	101 (3660)	100 (1702)	101 (35955)

more than by faculty in clinical departments (M.D.'s, 75 percent vs. 60 percent; Ph.D./O.H.D.'s, 85 percent vs. 62 percent; and non-doctoral faculty, 34 percent vs. 22 percent). As could be expected, patient care (with or without other responsibilities) was an area of responsibility for far higher percentages of faculty in clinical departments than in Basic Science departments -- 82 percent vs. 49 percent of M.D.'s in clinical vs. Basic Science departments, respectively; 31 percent vs. 6 percent of Ph.D./O.H.D.'s, and 50 percent vs. 21 percent of non-doctoral faculty.

Eighteen percent of the full-time Ph.D./O.H.D. faculty associated with Clinical Science departments were engaged in research as their single area of responsibility (compared with 8 percent of Ph.D./O.H.D. faculty in Basic Science departments).

C. Teaching and Research

Table 14 summarizes the teaching and research responsibilities of full-time 1976-77 faculty that were shown in Table 11. "Full" teaching or research means that faculty were engaged in teaching or in research as their only area of responsibility. "Part" teaching or research means that these duties were performed in conjunction with other areas of responsibility.

For all degree groups combined, 89 percent of the total population of full-time 1976-77 faculty were involved in teaching -- 4 percent as their only area of responsibility, and 85 percent as one of two or more major areas of activity. Faculty with both the M.D. & Ph.D. and faculty with the M.D.-only had the highest rates of involvement in teaching (92 percent and 94 percent, respectively). Eighty-five percent of Ph.D./O.H.D. faculty and 71 percent of non-doctoral faculty were involved in teaching as either all or part of their responsibilities.

Seventy-one percent of full-time 1976-1977 faculty were involved in research -- 5 percent as their only activity, and 66 percent as one of multiple areas of responsibility. Ph.D./O.H.D. faculty had the highest rate of involvement in research, 90 percent, followed by faculty with both medical and non-medical doctorates (M.D. & Ph.D. group, of whom 87 percent were involved in research. Sixty-three percent of M.D.-only faculty

TABLE 14

DISTRIBUTION OF FULL-TIME MEDICAL SCHOOL FACULTY
BY INVOLVEMENT IN TEACHING AND RESEARCH RESPONSIBILITIES, WITHIN DEGREE TYPE
(1976-77)

RESPONSIBILITY	D E G R E E T Y P E								TOTAL FULL-TIME FACULTY	
	M.D. & Ph.D.		M.D.		Ph.D./O.H.D.		Non-Doctoral			
	Count	Percent of Degree	Count	Percent of Degree	Count	Percent of Degree	Count	Percent of Degree	Count	Percent of Total
<u>TEACHING RESPONSIBILITY</u>										
Full Teaching Activity	48	2	912	4	334	3	348	12	1642	4
Part Teaching Activity	1758	90	20100	90	8830	82	1725	59	32413	85
No Teaching Activity	151	8	1309	6	1597	15	851	29	3908	10
TOTAL	1957	(100)	22321	(100)	10761	(100)	2924	(100)	37963 ¹	(99)
<u>RESEARCH RESPONSIBILITY</u>										
Full Research Activity	91	5	296	1	1189	11	299	10	1875	5
Part Research Activity	159	82	13948	62	8468	79	848	29	24860	66
No Research Activity	270	14	8077	36	1104	10	1777	61	11228	30
TOTAL	1957	(100)	22321	(99)	10761	(100)	2924	(100)	37963 ¹	(101)

¹Excludes 1212 of 39175 full-time faculty (3.1%) whose areas of responsibility or degree type is unknown.

and 39 percent of non-doctoral faculty were involved in research as either all or part of their areas of responsibility.

V. EMPLOYMENT HISTORY

A. Total Number of Professional Jobs

Table 15 presents the number of professional jobs in the employment histories of full-time medical school faculty, for each degree group in the 1976-77 and 1971-72 academic years. Forty-one percent of full-time 1976-77 faculty are shown to be in their first professional job, as compared with 46 percent in 1971-72. This apparent trend toward more previous professional employment among the more recent faculty is an artifact of changes in the data collection process; prior to 1970 employment history information was not collected, and from 1970 to 1973 only a ten-year history of employment was maintained in the data file.

In both time periods, non-doctoral faculty had the highest rate of previous employment (71 percent in 1976-77, 64 percent in 1971-72); 23 percent of 1976-77 non-doctoral faculty were in at least their fourth professional job. M.D. faculty had the lowest rate of previous professional employment (55 percent in 1976-77, 50 percent in 1971-72). Almost two-thirds (or sixty-four percent) of the M.D. & Ph.D. and the Ph.D./O.H.D. faculty in 1976-77 had prior professional experience, up from 57 and 58 percent in 1971-72.

B. Length of Time in Current Appointment

Table 16 presents data on the length of time that full-time faculty in U.S. medical schools had held their 1976-77 appointments. The overall average was 8.0 years, considerably longer than the average length of employment of full-time faculty as of January 1972 (6.8 years).

Examination of the data by academic rank shows that full-time faculty in the rank of professor had held their positions for the longest time---an average of 13.2 years, with only 18 percent being in their present position for five years or less. Holding their appointments for the next longest time, on the average, were associate professors (9.1 years), followed by clinical ranks (6.3 years), lecturer-and-other ranks (6.2 years), assistant professors (5.0 years), and, lastly, instructors (4.0 years). Seventy-eight percent of instructors had held their 1976-77 appointment for five years or less.

TABLE 15

DISTRIBUTION OF FULL-TIME MEDICAL SCHOOL FACULTY
BY TOTAL NUMBER OF JOBS, WITHIN DEGREE TYPE
(1976-77 AND 1971-72)

NUMBER OF JOBS	DEGREE TYPE												TOTAL FULL-TIME FACULTY		
	M.D. & Ph.D.			M.D.			Ph.D./O.H.D.			Non-Doctoral					
	1976-77		1971-72	1976-77		1971-72	1976-77		1971-72	1976-77		1971-72	1976-77		1971-72
	Count	% of Degree	% of Degree	Count	% of Degree	% of Degree	Count	% of Degree	% of Degree	Count	% of Degree	% of Degree	Count	% of Degree	% of Degree
One (current)	725	36	42	10494	45	50	4072	37	43	854	29	36	16145	41	46
Two	599	30	30	6865	30	28	3307	30	30	883	30	28	11654	30	29
Three	353	18	16	3304	14	14	1913	18	16	562	19	18	6132	16	15
Four	168	8	7	1490	6	5	983	9	77	340	12	11	2981	8	6
Five	91	4	4	602	3	2	433	4	3	175	6	4	1301	3	2
Six	45	2	1	229	1	1	148	1	1	90	3	2	512	1	1
Seven	28	1	*	117	1	*	92	1	*	65	2	1	308	1	*
TOTAL FULL-TIME FACULTY	2009	(99)	(100)	23101	(100)	(100)	10948	(100)	(100)	2969	(101)	(100)	35027 ¹	(100)	(99)

¹ Excludes 148 of 39175 full-time faculty (0.4%) whose number of professional jobs or degree type is unknown.

TABLE 16

DISTRIBUTION OF FULL-TIME MEDICAL SCHOOL FACULTY
BY LENGTH OF CURRENT EMPLOYMENT, WITHIN RANK AND DEGREE TYPE
(1976-77, WITH 1971-72 TOTALS)

RANK AND DEGREE	NUMBER OF YEARS IN CURRENT EMPLOYMENT										TOTAL FULL-TIME FACULTY		Avg. Length of Current Employment (In Years)		
	0-5 Years		6-10 Years		11-15 Years		16-20 Years		21-25 Years		25+ Years				
	Count	% of Rank & Degree	Count	% of Rank & Degree	Count	% of Rank & Degree	Count	% of Rank & Degree	Count	% of Rank & Degree	Count	% of Rank & Degree			
PROFESSOR															
M.D. & Ph.D.	187	21	246	27	178	20	156	17	66	7	75	8	908	100	12.7
M.D.	1240	20	1532	24	1284	20	1164	18	573	9	492	8	6291	99	12.9
Ph.D./O.H.D.	309	12	642	24	609	23	571	22	286	11	206	8	2623	100	14.1
Non-Doctoral	10	14	15	21	12	17	17	24	9	13	8	11	71	100	14.9
(Total)	(1746)	(18)	(2435)	(25)	(2083)	(21)	(1908)	(19)	(934)	(9)	(787)	(8)	(9893)	(100)	(13.2)
ASSOCIATE PROFESSOR															
M.D. & Ph.D.	175	36	183	38	77	16	32	7	2	2	8	2	483	101	8.3
M.D.	1440	30	1914	40	886	18	320	8	144	3	76	2	4840	101	8.9
Ph.D./O.H.D.	604	22	1244	45	597	22	207	8	80	3	33	1	2765	101	9.3
Non-Doctoral	28	13	75	36	39	18	45	21	13	6	11	5	211	99	12.4
(Total)	(2247)	(27)	(3416)	(41)	(1599)	(19)	(664)	(8)	(245)	(3)	(128)	(2)	(8299)	(100)	(9.1)
ASSISTANT PROFESSOR															
M.D. & Ph.D.	293	71	92	24	15	4	5	1	1	*	0	0	412	100	4.6
M.D.	5312	70	1738	23	353	5	133	2	39	1	19	*	7594	101	4.7
Ph.D./O.H.D.	2560	68	955	25	179	5	52	2	17	1	4	*	3773	101	4.9
Non-Doctoral	257	37	229	33	108	15	68	10	27	4	12	2	701	101	8.8
(Total)	(8422)	(67)	(3020)	(24)	(655)	(5)	(264)	(2)	(84)	(1)	(35)	(*)	(12480)	(99)	(5.0)
INSTRUCTOR															
M.D. & Ph.D.	46	90	5	10	0	0	0	0	0	0	0	0	51	100	2.6
M.D.	1879	85	288	13	34	2	11	1	3	*	1	*	2216	101	3.1
Ph.D./O.H.D.	492	85	74	13	8	1	3	1	0	0	1	*	578	100	3.4
Non-Doctoral	696	60	295	26	89	8	47	4	17	2	10	1	1154	101	5.9
(Total)	(3113)	(78)	(662)	(17)	(131)	(3)	(61)	(2)	(20)	(1)	(12)	(*)	(3999)	(101)	(4.0)
CLINICAL RANKS															
M.D. & Ph.D.	16	43	7	19	7	19	5	14	1	3	1	3	37	101	8.6
M.D.	724	59	290	24	118	10	58	5	31	2	10	1	1231	101	6.1
Ph.D./O.H.D.	42	43	34	35	11	11	7	7	1	1	2	2	97	99	7.3
Non-Doctoral	56	60	21	22	5	5	7	7	3	3	2	2	94	99	6.6
(Total)	(838)	(57)	(352)	(24)	(141)	(10)	(77)	(5)	(36)	(2)	(15)	(1)	(1459)	(99)	(6.3)
LECTURER AND OTHER															
M.D. & Ph.D.	68	58	28	24	8	7	3	2	3	2	8	7	118	100	7.5
M.D.	552	51	217	24	60	7	32	4	22	2	17	2	960	100	6.0
Ph.D./O.H.D.	702	63	242	22	83	8	44	4	24	2	16	1	1111	100	5.8
Non-Doctoral	398	55	179	25	75	10	41	6	12	2	17	2	722	100	6.8
(Total)	(1720)	(60)	(666)	(23)	(226)	(8)	(120)	(4)	(61)	(2)	(58)	(2)	(2851)	(99)	(6.2)
1976-77 FULL-TIME FACULTY	18086	46	10551	27	4835	12	3094	8	1380	4	1035	3	38981 ¹	100	8.0
1971-72 FULL-TIME FACULTY	18408	57	6853	21	4006	12	1708	5	901	3	582	2	32471 ¹	100	6.8

¹Excludes 194 of 39175 full-time 1976-77 faculty (0.5%) and 13 of 32471 full-time 1971-72 faculty (less than 0.1%) with missing information.

Within each of the first four ranks shown in Table 16, average duration of current employment showed a certain relationship to degree type, but the pattern did not hold up in the clinical and lecturer-and-other ranks. Averaging the length of current appointment for each degree group, combining all ranks, the M.D. & Ph.D. group had the longest average duration of their 1976-77 faculty position (9.3 years), followed by Ph.D./O.H.D.'s (8.3 years), M.D.'s (7.8 years), and non-doctoral faculty (7.5 years).

Overall, rank had a greater relationship to length of employment than did degree type.

C. Original Source of Medical School Faculty

The professional employment or training activity engaged in immediately prior to the first salaried medical school faculty appointment is shown in Table 17. Combining all degree types, the majority of full-time 1976-77 faculty (59 percent) originally joined medical school faculties from professional training rather than from professional employment (35 percent).

Large differences in original sources of medical school faculty can be seen for the different degree groups: While 62 percent of the M.D. & Ph.D. faculty group, and 66 percent of the M.D.-only group, came to medical school faculties directly from professional training, this was the case for 52 percent of Ph.D./O.H.D. faculty¹ and for only 26 percent of non-doctoral faculty. Half of the M.D. & Ph.D. group who came from professional training, and about two-thirds of the M.D.'s who did so, first joined medical school faculties from internships or residency programs, while the highest percentage of just-trained Ph.D./O.H.D.'s joined medical school faculties from NIH or NIMH training programs.

Fourteen percent of Ph.D./O.H.D. faculty were at non-medical educational institutions before first joining medical school faculties, but it is not known whether they were employed or were in training there. If these 14 percent were mostly in training there is not, in fact, a difference between the Ph.D./O.H.D. and the M.D. degree group with respect to employment vs. training sources of medical school faculty.

TABLE 17

DISTRIBUTION OF FULL-TIME MEDICAL SCHOOL FACULTY
BY ORIGINAL EMPLOYMENT SOURCE, WITHIN DEGREE TYPE
(1976-77)

ORIGINAL EMPLOYMENT SOURCE	DEGREE TYPE								TOTAL FULL-TIME FACULTY	
	M.D. & Ph.D.		M.D.		Ph.D./O.H.D.		Non-Doctoral			
	Count	% of Degree	Count	% of Degree	Count	% of Degree	Count	% of Degree	Count	% of Degree
PROFESSIONAL EMPLOYMENT										
U.S. Active Military Service	54	3	1297	6	80	1	42	2	1473	4
U.S. Government (Incl. Public Health Service)	114	6	1376	6	566	5	138	5	2194	6
U.S. State/Local Government	31	2	336	2	233	2	310	11	910	2
U.S. Hospital (Non-Federal)	20	1	481	2	172	2	258	9	931	2
Private Practice	52	3	1762	8	44	*	28	1	1886	5
Volunteer - Same Medical School	7	*	156	1	27	*	17	1	207	1
Volunteer - Other U.S. Medical School	5	*	91	*	12	*	4	*	112	*
U.S. Med. School, Non-Faculty Employment	9	1	57	*	158	2	150	5	374	1
Faculty - U.S. Non-Medical School	84	4	402	2	1057	10	263	9	1806	5
Foreign - Academic	132	7	304	1	185	2	10	*	631	2
Foreign - Non-Academic	11	1	101	1	46	*	8	*	166	*
Foundation/Research Institution	21	1	78	*	207	2	29	1	335	1
Private Business/Industry	3	*	26	*	153	1	99	3	281	1
Other Employment	115	6	608	3	685	6	449	16	1857	5
(Total Employment)	(658)	(34)	(7075)	(32)	(3625)	(34)	(1805)	(63)	(13163)	(35)
PROFESSIONAL TRAINING										
U.S. Medical School	90	5	758	3	681	6	73	2	1602	4
Other U.S. Educational Institution	83	4	151	1	1692	16	425	15	2351	6
NIH/NIMH Training Program	293	15	3230	15	2298	22	110	4	5931	16
Other Training Program	101	5	1351	6	710	7	117	4	2279	6
Foreign Educational Institution	55	3	222	1	159	2	10	*	446	1
Internship/Residency	582	30	8894	40	51	1	8	*	9535	25
(Total Training)	(1204)	(62)	(14606)	(66)	(5591)	(52)	(743)	(26)	(22144)	(59)
Non-Medical School-Employment/Training Status Unknown	81	4	355	2	1461	14	337	12	2234	6
TOTAL FULL-TIME FACULTY	1943	(100)	22036	(100)	10677	(100)	2885	(100)	37541¹	(100)

¹Excludes 1634 of 39175 full-time faculty (4.2%) whose original employment source or degree type is unknown.

For the one-third of each doctoral degree group who are known to have come initially to medical school faculties from prior professional employment, the most important sources of faculty (providing at least 5 percent of full-time faculty) were: for the M.D. & Ph.D. degree group, U.S. Government employment, foreign academic institutions, and "other" employment sources; for M.D. faculty, military service, the U.S. Government, and private practice; for Ph.D./O.H.D. faculty, the U.S. Government, the faculties of U.S. non-medical schools, and "other" employment sources.

For the two-thirds of non-doctoral faculty originally recruited to medical school faculties from professional employment, the categories of state and local governments, non-federal hospitals, non-medical school faculties, and "other" employment were the largest employment sources.

D. Previous Employment Location

Table 18 displays the previous employment locations of the 59 percent of full-time 1976-77 medical school faculty who had professional experience prior to their current appointment (shown in Table 15 as having two or more professional jobs). Combining all degree groups, 32 percent of faculty with prior professional job experience came to their present faculty positions from other medical school full-time employment; 17 percent came from other academic institutions; 17 percent came from U.S. Government employment; 7 percent each came from foreign employment and from private practice; 2 percent each came from part-time and from volunteer medical school positions; and 16 percent came from sources other than those specifically listed.

Looking at the previous employment locations of full-time 1976-77 faculty by degree type, other medical schools were the principal source of previously employed faculty in the M.D. & Ph.D. group (44 percent), while 19 percent of M.D. & Ph.D.'s came from foreign employment, 14 percent from non-medical academic institutions, and 11 percent from government employment. Medical schools were also the largest source of previously employed M.D. faculty (40 percent), the next highest percentages of whom came from government employment (22 percent), from "other" employment (14 percent), and from private practice (12 percent).

TABLE 18

DISTRIBUTION OF PREVIOUSLY EMPLOYED FULL-TIME FACULTY
BY PREVIOUS EMPLOYMENT LOCATION, WITHIN DEGREE TYPE
(1976-77)

PREVIOUS EMPLOYMENT LOCATION	D E G R E E T Y P E								TOTAL FULL-TIME FACULTY	
	M.D. & Ph.D.		M.D.		Ph.D./O.H.D.		Non-Doctoral		Count	Percent of Degree
	Count	Percent of Degree	Count	Percent of Degree	Count	Percent of Degree	Count	Percent of Degree		
Medical School, Full-Time	505	41	4286	35	2041	31	277	13	7109	32
Medical School, Part-Time	24	2	279	2	121	2	14	1	438	2
Medical School, Volunteer	9	1	325	3	45	1	10	1	389	2
Other Academic Institution/Foundation	180	14	685	6	2504	38	474	23	3843	17
Foreign Employment	231	19	808	7	413	6	35	2	1487	7
Private Practice	49	4	1494	12	62	1	22	1	1627	7
Government Employment	141	11	2626	22	571	9	325	16	3663	17
Other Employment	101	8	1727	14	876	3	898	44	3502	16
TOTAL FULL-TIME FACULTY	1240	(101)	12230	(101)	6633	(101)	2055	(101)	22158	(100)

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The principal source of previously employed Ph.D./O.H.D. faculty was non medical schools (38 percent), followed by medical schools (34 percent); "other" employment and government employment provided 13 percent and 9 percent, respectively. Forty-four percent of all previously employed non-doctoral faculty came from employment sources other than those specifically listed, while 23 percent came from non-medical schools, 16 percent from government employment, and 15 percent from medical schools.

E. Private Practice Experience of M.D.'s in Clinical Specialties

Table 19 shows the percentages of full-time M.D. faculty in Clinical Science specialties who had private practice experience at some time in their professional employment histories. For the 1976-77 M.D. faculty, the percentage of faculty with private practice experience ranges between 6 and 15 percent for all Clinical Science specialties except two: Twenty-two percent of M.D.'s in Physical Medicine and Rehabilitation had some private practice experience, as did 60 percent of M.D.'s in the Family Practice specialty. This high percentage of private practice experience among M.D.'s in Family Practice suggests there was recruitment from the private sector for this specialty as it grew from a total of 35 medical school faculty in 1969-70, to 82 faculty in 1971-72, to 396 faculty in 1976-77 (375 of whom were M.D.'s; see Table 8).

TABLE 19

DISTRIBUTION OF FULL-TIME M.D. FACULTY
IN CLINICAL SCIENCE SPECIALTIES, BY
PRIVATE PRACTICE EXPERIENCE
(1976-77 AND 1971-72)

CLINICAL SCIENCE SPECIALTY	FULL-TIME M.D. FACULTY WITH PRIVATE PRACTICE EXPERIENCE			
	1976-77		1971-72	
	Count	Percent of Specialty	Count	Percent of Specialty
Anesthesiology	199	15	174	18
Dermatology	14	6	12	6
Endocrinology	17	6	16	8
Family Practice	229	60	42	52
Internal Medicine	357	7	272	8
General Medicine	69	6	114	8
Nuclear Medicine	14	9	10	9
Neurology	43	6	48	8
Ob-Gyn	120	12	100	11
Pathology-Clinical	41	7	49	10
Pediatrics	321	12	302	14
Physical Med. & Rehab.	53	22	62	24
Psychiatry	303	14	277	16
Public Health & Prev. Med.	28	10	29	10
Radiology	223	11	208	17
Surgery	322	9	275	9
Other	20	11	21	19
TOTAL FULL-TIME M.D. FACULTY IN CLINICAL SPECIALISTS WITH PRIVATE PRACTICE EXPERIENCE	2383	11 ¹	2011	12 ¹

¹Based on 21368 full-time 1976-77 M.D. faculty and 17217 full-time 1971-72 M.D. faculty in clinical science specialties.

VI. TRAINING AND CREDENTIALS

A. Educational Characteristics of Full-Time M.D. Faculty

This chapter summarizes the number and the specialty areas of internships, residencies, and board certifications of full-time M.D. faculty in medical schools. Also covered are the distributions of pre-doctoral awards (to full-time Ph.D./O.H.D. faculty) and of post-doctoral awards (to full-time M.D. or Ph.D./O.H.D. faculty).

1. Distribution of Internships

Table 20 shows that 84 percent of full-time M.D. faculty in both the 1976-77 and 1971-72 academic years had completed one internship, and that an additional 2 percent in each year had completed two internships. The percentages were nearly identical for all academic ranks, except the lecturer-and-other category in which 76 percent of M.D. faculty had completed at least one internship.

2. Distribution of Residencies and Residency Specialties

It can be seen from Table 21 that 87 percent of full-time 1976-77 M.D. faculty had completed at least one residency;¹ this may be compared with 84 percent five years earlier. Fifty-two percent of 1976-77 M.D.'s had completed one residency, 20 percent had completed two residencies, and 9 percent had completed three or four residencies. This represents an overall average of 1.32 residencies per full-time M.D. faculty member. Slight variations can be seen in the number of residencies of

¹ Clinical Fellowships were included with residencies if they are reported in the "residencies" area of the FRS Accession Form. If an individual reported as two or more residencies what was really a single residency that was begun at one location and continued at other location(s), these were counted as multiple residencies because of the impossibility of distinguishing such a case from actual multiple residencies.

TABLE 20

DISTRIBUTION OF FULL-TIME M.D. MEDICAL SCHOOL FACULTY
BY NUMBER OF INTERNSHIPS, WITHIN RANK
(1976-77, WITH 1971-72 TOTALS)

RANK	NUMBER OF INTERNSHIPS						TOTAL FULL-TIME M.D. FACULTY	
	NONE		ONE		TWO		Count	Percent of Rank
	Count	Percent of Rank	Count	Percent of Rank	Count	Percent of Rank		
Professor	958	13	6032	84	183	3	7173	100
Associate Professor	730	14	4476	85	75	1	5281	100
Assistant Professor	1075	14	6664	85	86	1	7825	100
Instructor	329	17	1630	82	24	1	1983	100
Clinical Ranks	217	17	1017	81	27	2	1261	100
Lecturer & Other	249	25	734	74	16	2	999	101
1976-77 TOTAL FULL- TIME M.D. FACULTY	3558	14	20553	24	411	2	24522 ¹	100
1971-72 TOTAL FULL- TIME M.D. FACULTY	2899	14	16896	84	410	2	20205 ¹	100

¹Excludes 588 of 25110 1976-77 full-time M.D. faculty (2.3%) and 176 of 20381 1971-72 full-time M.D. faculty (0.9%) whose rank or number of internships is unknown.

TABLE 21
DISTRIBUTION OF FULL-TIME M.D. MEDICAL SCHOOL FACULTY
BY NUMBER OF RESIDENCIES, WITHIN RANK
(1976-77, WITH 1971-72 TOTALS)

RANK	NUMBER OF RESIDENCIES										TOTAL FULL-TIME M.D. FACULTY	
	NONE		ONE		TWO		THREE		FOUR		Count	Percent of Rank
	Count	Percent of Rank	Count	Percent of Rank	Count	Percent of Rank	Count	Percent of Rank	Count	Percent of Rank		
Professor	1136	16	3555	50	1860	26	503	7	100	1	7154	100
Associate Professor	677	13	2675	51	1439	27	392	7	90	2	5273	100
Assistant Professor	705	9	4322	55	2114	27	562	7	130	2	7833	100
Instructor	228	11	1107	56	504	25	127	6	28	1	1994	99
Clinical Ranks	210	17	618	49	319	25	86	7	29	2	1262	100
Lecturer & Other	238	24	472	47	217	22	57	6	12	1	996	100
1976-77 TOTAL FULL-TIME M.D. FACULTY	3194	13	12749	52	6453	26	1727	7	389	2	24512 ¹	100
1971-72 TOTAL FULL-TIME M.D. FACULTY	3292	16	9913	49	5196	26	1409	7	344	2	20154 ¹	100

¹Excludes 598 of 25110 1976-77 full-time M.D. faculty (2.4%) and 227 of 20381 1971-72 full-time M.D. faculty (1.1%) whose rank or number of residencies is unknown.

M.D. faculty of different academic ranks. The average numbers of residencies were: assistant professors, 1.37 residencies; associate professors, 1.34 each; instructors, 1.31 each; clinical ranks, 1.29 each; professors, 1.28 each; and lecturers and others, 1.13 residencies each.

Table 22 shows the distributions of residency specialties, based on the total number of residencies of full-time M.D. faculty in the 1976-77 and 1971-72 academic years. The distributions were very similar for the two time periods. Thirty-two percent of residencies of M.D. faculty at either point in time were in Internal Medicine. Other residency specialties which accounted for relatively large percentages of the total number of residencies were Pediatrics (12 percent), General Surgery (11 percent), Pathology (8 percent), General Psychiatry (8 percent), and Radiology (6 percent). Other specialties each accounted for at most 5 percent of the residencies of full-time M.D. faculty.

Fewer than 0.5 percent of residencies of full-time M.D. faculty in either academic year were in the area of Family Practice; however the number of residencies in this area increased from 14 in 1971-72, to 99 in 1976-77. Nuclear Medicine also showed a considerable increase, from 5 residencies among full-time 1971-72 M.D. faculty, to 56 among 1976-77 M.D.'s, although the percentage of all residencies that were in this specialty remained under 0.5 percent.

3. Distribution of Board Certifications and Areas Awarded

Table 23 shows that 66 percent of all full-time 1976-77 M.D. faculty had at least one board certification (the same percentage as in 1971-72), 54 percent having one board certification (56 percent in 1971-72), and 12 percent holding two certifications (10 percent in 1971-72). Rates of board certification can be seen to be directly related to rank. Seventy-nine percent of M.D. professors had at least one board certification, as did 74 percent of associate professors, 60 percent of assistant professors, 57 percent of clinical ranks, 47 percent of lecturers and others, and 33 percent of instructors.

TABLE 22
DISTRIBUTION OF RESIDENCY SPECIALTIES
OF FULL-TIME M.D. MEDICAL SCHOOL FACULTY
(1976-77 AND 1971-72)

RESIDENCY SPECIALTY	DISTRIBUTION OF RESIDENCY SPECIALTIES			
	1976-77		1971-72	
	Count	Percent of Residencies	Count	Percent of Residencies
Pathology	2732	8	2468	10
Anesthesiology	1513	5	1095	4
Dermatology	253	1	203	1
Family Practice	99	*	14	*
General Practice	158	1	124	*
Internal Medicine	10401	32	8218	32
Neurology	1211	4	1001	4
Nuclear Medicine	56	*	5	*
Obstetrics-Gynecology	1260	4	1074	4
Ophthalmology	437	1	323	1
Orthopedic Surgery	579	2	462	2
Otolaryngology	273	1	229	1
Pediatrics	3778	12	3000	12
Physical Medicine & Rehab.	314	1	266	1
Preventive Medicine	55	*	40	*
Child Psychiatry	244	1	170	1
General Psychiatry	2647	8	2221	9
Public Health	31	*	26	*
Radiology	1811	6	1356	5
General Surgery	3454	11	2760	11
Neurological Surgery	342	1	273	1
Plastic Surgery	133	*	94	*
Thoracic Surgery	272	1	214	1
Urology	333	1	254	1
Other	54	*	28	*
TOTAL RESIDENCIES OF FULL-TIME M.D. FACULTY	32440	101	25918	102

TABLE 23

DISTRIBUTION OF FULL-TIME M.D. MEDICAL SCHOOL FACULTY
BY NUMBER OF BOARD CERTIFICATIONS, WITHIN RANK
(1976-77, WITH 1971-72 TOTALS)

RANK	NUMBER OF BOARD CERTIFICATIONS						TOTAL FULL-TIME M.D. FACULTY	
	NONE		ONE		TWO		Count	Percent of Rank
	Count	Percent of Rank	Count	Percent of Rank	Count	Percent of Rank		
Professor	1450	20	4532	63	1167	16	7149	99
Associate Professor	1377	26	3160	60	715	14	5252	100
Assistant Professor	3122	40	3851	50	739	10	7712	100
Instructor	1288	67	573	30	54	3	1915	100
Clinical Ranks	536	43	602	48	114	9	1252	100
Lecturer & Other	525	53	401	40	66	7	992	100
1976-77 TOTAL FULL- TIME M.D. FACULTY	8298	34	13119	54	2855	12	24272 ¹	100
1971-72 TOTAL FULL- TIME M.D. FACULTY	6787	34	11219	56	1901	10	19907 ¹	100

¹ Excludes 838 of 25110 1976-77 full-time M.D. faculty (3.3%) and 474 of 20381 1971-72 full-time M.D. faculty (2.3%) whose rank or number of board certifications is unknown.

In Table 24 the numbers of board certifications are given for full-time M.D. faculty within each major academic department. Overall, 52 percent of M.D.'s in Basic Science departments had at least one board certification, as compared with 67 percent of M.D.'s in Clinical Science departments.

Among the Basic Sciences, full-time M.D.'s in departments of Pathology had the highest percentage of board certified faculty (75 percent). The next highest rate of board certification was for departments of Microbiology (28 percent). Among the clinical departments, the highest percentages of board certified M.D.'s were in departments of Dermatology (78 percent), Radiology (77 percent), Pediatrics (76 percent), Ophthalmology (74 percent), and Surgery (73 percent). The lowest rates of board certification for full-time M.D. faculty were in departments of Psychiatry, and Public Health and Preventive Medicine, with 53 percent and 52 percent, respectively. Rates of board certification of M.D.'s ranged between 59 percent and 70 percent for all other clinical departments.

The distributions of specialty areas are shown in Table 25, for all board certifications held by full-time M.D. faculty. Very little change occurred in the distributions between 1971-72 and 1976-77. The area of the largest number of board certifications was Internal Medicine (24 percent of all certifications held by full-time 1976-77 M.D.'s), with relatively large numbers also in the areas of Pediatrics (12 percent) and Surgery (8 percent). (A total of 15 percent of the board certifications of full-time M.D. faculty were held in the various surgical areas, including the sub-specialties of Orthopedic Surgery, Neurological Surgery, Plastic Surgery, Thoracic Surgery, and Urology. The various areas of Pathology accounted for a total of 10 percent of the board certifications.) All other specialties accounted for fewer than five percent each of all board certifications awarded to full-time 1976-77 M.D. faculty.

As was the case for residency specialties, increases occurred, between 1971-72 and 1976-77, in the numbers of board certifications held in the areas of Family Practice (53 certifications in 1971-72,

TABLE 24
NUMBER OF BOARD CERTIFICATIONS OF FULL-TIME
M.G. MEDICAL SCHOOL FACULTY, WITHIN
MAJOR ACADEMIC DEPARTMENTS
(1976-77)

ACADEMIC DEPARTMENT	NUMBER OF BOARD CERTIFICATIONS						TOTAL FULL- TIME M.D. FACULTY	
	NONE		ONE		TWO		Count	% of Dept.
	Count	% of Dept.	Count	% of Dept.	Count	% of Dept.		
BASIC SCIENCE								
Anatomy	187	93	14	7	1	1	202	101
Biochemistry	89	92	7	7	1	1	97	100
Microbiology	129	72	39	22	10	6	178	100
Pathology	480	26	980	53	400	22	1860	101
Pharmacology	220	84	43	16	0	0	263	100
Physiology	256	90	27	10	1	*	284	100
Other Basic Science	55	71	21	27	1	1	77	99
(Total Basic Science)	(1416)	(48)	(1131)	(38)	(414)	(14)	(2961)	(100)
CLINICAL SCIENCE								
Anesthesiology	500	38	789	60	18	1	1307	99
Dermatology	36	21	129	76	4	2	169	99
Family Practice	163	41	239	55	18	4	437	100
Medicine	2143	34	3188	50	1023	16	6354	100
Neurology	261	7	359	51	85	12	705	100
Ob-Gyn	334	32	664	65	30	3	1028	100
Ophthalmology	98	26	269	72	8	2	375	100
Orthopedics	86	32	177	66	5	2	268	100
Otolaryngology	53	29	125	69	2	1	180	99
Pediatrics	624	23	1726	64	330	12	2680	99
Phys. Med. & Rehab.	92	34	167	62	11	4	270	100
Psychiatry	979	47	952	45	164	8	2095	100
Public Health & Prev. Med.	184	48	174	46	22	6	380	100
Radiology	407	23	1206	69	144	8	1757	100
Surgery	759	26	1597	55	528	18	2884	99
(Total Clinical Science)	(6736)	(32)	(11761)	(56)	(2392)	(11)	(20889)	(99)
OTHER	148	34	233	54	51	12	432	100
TOTAL FULL-TIME M.D. FACULTY	8300	34	13125	54	2857	12	24282 ¹	100

¹Excludes 828 of 25110 full-time M.D. faculty (3.2%) whose department of affiliation or number of board certifications is unknown.

TABLE 25

DISTRIBUTION OF BOARD CERTIFICATIONS
AWARDED TO FULL-TIME M.D. MEDICAL SCHOOL FACULTY
(1976-77 AND 1971-72)

BOARD CERTIFICATIONS AND SUB-SPECIALTIES	DISTRIBUTION OF BOARD CERTIFICATIONS			
	1976-77		1971-72	
	Count	Percent of Certi- fications	Count	Percent of Certi- fications
Anesthesiology	821	4	650	4
Dermatology	182	1	175	1
Family Practice	225	1	53	*
Internal Medicine	4545	24	3264	22
Cardiovascular Diseases	320	2	207	1
Gastroenterology	166	1	81	1
Pulmonary Diseases	140	1	73	1
Neurological Surgery	196	1	187	1
Nuclear Medicine	177	1	6	*
Obstetrics & Gynecology	722	4	680	4
Ophthalmology	322	2	249	2
Orthopedic Surgery	330	2	280	2
Otolaryngology	205	1	187	1
Pathology				
Anatomic Pathology	885	5	903	6
Clinical Pathology	341	2	357	2
PA & Clinical Pathology	342	2	258	2
Other Pathology	229	1	201	1
Pediatrics (General)	2303	12	1934	13
Pediatric Cardiology	159	1	149	1
Pediatrics (Other Specific)	84	*	28	*
Physical Medicine & Rehabilitation	199	1	204	1
Plastic Surgery	99	1	75	1
Preventive Medicine (General)	108	1	128	1
Psychiatry & Neurology	774	4	833	6
Child Psychiatry	113	1	113	1
Neurology/Child Neurology	318	2	248	2
Psychiatry/Psychoanalysis	596	4	466	3
Radiology (General)	1038	5	882	6
Radiology (Specific)	248	1	124	1
Surgery	1453	8	1301	9
Thoracic Surgery	425	2	433	3
Urology	203	1	166	1
Other	583	3	131	1
TOTAL BOARD CERTIFICATIONS OF FULL-TIME M.D. FACULTY	18851	102	15026	100

225 in 1976-77) and Nuclear Medicine (6 certifications in 1971-72, and 177 in 1976-77)--although these each accounted for fewer than one percent of all board certifications in either year.

B. Pre- and Post-Doctoral Awards¹

1. Distribution of Pre-Doctoral Awards to Ph.D. Faculty

Table 26 shows the number of pre-doctoral awards granted to full-time Ph.D. faculty (M.D. and Ph.D., and Ph.D./O.H.D. groups). Sixty-two percent of these faculty in 1976-77 had received some pre-doctoral support, including 44 percent with one award, 14 percent with two awards, and 4 percent with three awards. The relative percentages of faculty with pre-doctoral awards was lower among the M.D. and Ph.D. group (39 percent having at least one award) than among the Ph.D./O.H.D. group (67 percent having received awards).

2. Source of Pre-Doctoral Awards to Ph.D. Faculty by Year of Award

Table 27 shows the pre-doctoral awards to Ph.D. faculty by source of award, within four time periods in which awards began. (Note that the data for the 1970's "decade" cannot be completed, but trends may still be extrapolated.)

Overall, NIH is the single largest source of pre-doctoral support, having provided 34 percent of all pre-doctoral awards to Ph.D. faculty. NIH provided 6 percent of the pre-doctoral awards in the years

¹The term "award" is used in a general way, to indicate support from national research agencies and private foundations, as well as from academic institutions. Pre-doctoral fellowships, which support the training of students in doctoral degree programs, are generally not awarded to undergraduate medical students; therefore they are analyzed only for Ph.D. faculty in this report. Post-doctoral fellowships, on the other hand, are awarded to graduates of either M.D. or Ph.D. programs, to support post-graduate research.

TABLE 26

DISTRIBUTION OF FULL-TIME PH.D. MEDICAL SCHOOL FACULTY
BY NUMBER OF PRE-DOCTORAL AWARDS, WITHIN DEGREE TYPE
(1976-77)

NUMBER OF PRE-DOCTORAL AWARDS	D E G R E E T Y P E				TOTAL FULL- TIME PH.D. FACULTY	
	M.D. & Ph.D.		Ph.D./O.H.D.		Count	Percent of Total
	Count	Percent of Degree	Count	Percent of Degree		
NONE	1116	61	3541	34	4657	38
ONE	539	30	4929	47	5468	44
TWO	132	7	1648	16	1780	14
THREE	34	2	447	4	481	4
TOTAL FULL-TIME PH.D. FACULTY	1821	100	10565	101	12386 ¹	100

¹Exclude 571 of 12957 full-time Ph.D. faculty (4.4%) whose number of Pre-doctoral awards is unknown.

TABLE 27

DISTRIBUTION OF PRE-DOCTORAL AWARDS TO FULL-TIME PH.D./O.H.D. MEDICAL SCHOOL FACULTY
BY SOURCE OF AWARD AND YEAR AWARD BEGAN
(1976-77)

SOURCE OF PRE-DOCTORAL AWARD	YEAR AWARD BEGAN								TOTAL PRE-DOCTORAL AWARDS TO FULL-TIME Ph.D./O.H.D. FACULTY	
	PRIOR TO 1950		1950 - 1959		1960 - 1969		1970 - 1976		Number of Awards	Percent of Awards
	Number of Awards	Percent of Awards	Number of Awards	Percent of Awards	Number of Awards	Percent of Awards	Number of Awards	Percent of Awards		
NIH	67	6	596	25	2543	43	322	34	3528	34
Other Public Health Service (Including NIMH)	38	3	216	9	585	10	49	5	888	9
SRS	0	0	4	*	42	1	2	*	48	*
OE	0	0	7	*	117	2	16	2	140	1
Other DHEW	6	1	28	1	253	4	82	9	369	4
VA	53	5	53	2	105	2	38	4	249	2
NSF	2	*	152	6	408	7	66	7	628	6
Other Federal Government	78	7	140	6	258	4	30	3	516	5
Foreign	29	3	81	3	168	3	19	2	297	3
Industry	51	5	95	4	75	1	8	1	229	2
Foundation	158	14	278	12	278	5	63	7	792	8
State	0	0	2	*	17	*	18	2	37	*
Academic-Foreign	17	2	36	2	78	1	8	1	139	1
Academic	492	45	573	24	852	14	184	19	2101	20
Miscellaneous Other	104	10	127	5	151	3	42	4	424	4
Total Pre-Doctoral Awards to Full-time Ph.D./O.H.D. Faculty	1095	101	2398	100	5945	100	947	100	10385	100

prior to 1950, increasing to 25 percent of awards that began in the decade of the 1950's. By the 1960's, and continuing into the present decade, NIH ranks consistently highest among all sources of pre-doctoral awards (accounting for 43 and 34 percent of awards in the 1960's and 1970's, respectively).

Academic institutions accounted for the next largest percentage of pre-doctoral awards, having provided 20 percent of those awarded in all time periods combined. But whereas academic institutions supported 45 percent of pre-doctoral grants given prior to 1950, they accounted for only 24 percent of pre-doctoral awards in the 1950's, 14 percent in the 1960's, and 19 percent of awards that began since 1970.

All Federal Government sources considered together provided 61 percent of all pre-doctoral awards to full-time 1976-77 Ph.D. faculty -- including 22 percent of awards that began prior to 1950, 49 percent of awards in the 1950's, 73 percent of awards in the 1960's, and 64 percent of awards that began since 1970.

3. Discipline of Pre-Doctoral Awards to Ph.D. Faculty by Year of Award

Table 28 again shows the pre-doctoral awards to Ph.D. faculty by four time periods in which the awards began, this time showing the relative distribution of awards for the various training disciplines within each time period.

Sixty-five percent of pre-doctoral awards granted in all time periods combined were given for Basic Science training, with 6 percent for the Clinical Sciences, 11 percent for Physical Sciences and Engineering, 14 percent for the Behavioral and Social Sciences, 3 percent for Allied Health, and fewer than one percent each for Administration or for "Other" disciplines.

TABLE 28
DISTRIBUTION OF PRE-DOCTORAL AWARDS TO FULL-TIME Ph.D./O.H.D. MEDICAL SCHOOL FACULTY BY DISCIPLINE OF AWARD AND YEAR AWARD BEGAN
(1976-77)

DISCIPLINE OF PRE-DOCTORAL AWARD	YEAR AWARD BEGAN								TOTAL PRE-DOCTORAL AWARDS TO FULL-TIME Ph.D./O.H.D. FACULTY	
	Prior to 1950		1950-1959		1960-1969		1970-1976		# of Awards	% of Awards
	# of Awards	% of Awards	# of Awards	% of Awards	# of Awards	% of Awards	# of Awards	% of Awards		
BASIC SCIENCE										
Anatomy	55	5	115	5	494	8	94	10	758	7
Biochemistry	257	24	516	22	1116	19	93	10	1982	19
Biology, All	38	4	76	3	248	4	27	3	389	4
Biophysics	18	2	57	2	99	2	11	1	185	2
Genetics	16	1	45	2	103	2	13	1	177	2
Immunology	4	3	11	*	71	1	15	2	101	1
Micro-Parasitology	84	8	241	10	489	8	57	6	871	8
Pathology-Basic	14	1	21	1	59	1	14	1	108	1
Pharmacology	41	4	159	7	416	7	57	6	673	7
Physiology	121	11	245	10	671	11	107	11	1144	11
All Other	75	7	95	4	125	2	15	2	310	3
(Total Basic Science)	(723)	(67)	(1581)	(67)	(3891)	(66)	(503)	(53)	(6698)	(65)
CLINICAL SCIENCE										
Anesthesiology	1	*	0	0	2	*	1	*	4	*
Dermatology	0	0	2	*	2	*	0	0	4	*
Endocrinology	8	1	17	1	41	1	8	1	74	1
Family Practice	0	0	0	0	0	0	0	0	0	0
Internal Medicine	4	*	15	1	20	*	1	*	40	*
General Medicine	30	3	46	2	46	1	6	1	128	1
Nuclear Medicine	0	0	4	*	24	*	5	1	33	*
Neurology	1	*	5	*	7	*	1	*	14	*
Ob-Gyn	1	*	0	0	3	*	2	*	6	*
Pathology - Clinical	2	*	3	*	4	*	1	*	10	*
Pediatrics	0	0	1	*	1	*	3	*	5	*
Physical Medicine and Rehabilitation	2	*	0	0	5	*	0	*	7	*
Psychiatry	0	0	4	*	9	*	3	*	16	*
Public Health and Preventive Medicine	6	*	8	*	46	1	13	1	73	1
Radiology	3	*	13	1	59	1	9	1	84	1
Surgery	6	1	10	*	18	*	0	0	34	*
All Other	5	*	8	*	24	*	5	1	42	*
(Total Clinical Science)	(69)	(6)	(136)	(6)	(311)	(5)	(58)	(6)	(574)	(6)
PHYSICAL SCIENCES & ENGINEERING	174	16	270	11	652	11	86	9	1182	11
BEHAVIORAL & SOCIAL SCIENCES	94	9	296	13	807	14	226	24	1423	14
ALLIED HEALTH	19	2	55	2	156	3	32	3	262	3
ADMINISTRATION	0	0	1	*	12	*	8	1	21	*
OTHER	6	1	22	1	73	1	30	3	131	1
TOTAL PRE-DOCTORAL AWARDS TO FULL-TIME Ph.D./O.H.D. FACULTY	1085	101	2361	100	5902	100	943	99	10291	100

The relative distribution of pre-doctoral awards by discipline remained quite constant for the first three time periods shown. There is an apparent shift in the fields of study, however, for awards that began since 1970 as compared with earlier pre-doctoral awards. The percentage of pre-doctoral awards given for study in Basic Science disciplines dropped from 66 percent in the 1960's and earlier time periods, to 53 percent of awards given since 1970. This decrease in the overall total of pre-doctoral awards for Basic Science study is due almost entirely to the relative decrease in pre-doctoral support for Biochemistry (from 19 percent of all pre-doctoral awards that began in the 1960's to only 10 percent of those awards granted between 1970 and 1976).

Another notable trend in the distribution of pre-doctoral awards by discipline is that the percentage of awards for training in the Behavioral and Social Sciences increased from 13 or 14 percent in the 1950's and 1960's to 24 percent of pre-doctoral awards granted since 1970.

4. Distribution of Post-Doctoral Awards

Table 29 shows the number of post-doctoral awards given to full-time 1976-77 faculty in three doctoral degree groups. Fifty-four percent of all full-time doctoral faculty had received some post-doctoral support (36 percent had received one award, 13 percent had two awards, and 5 percent had received three or four awards). Sixty-one percent of M.D. and Ph.D.'s, 52 percent of M.D.'s, and 54 percent of Ph.D./O.H.D.'s had received some post-doctoral support.

5. Source of Post-Doctoral Awards, by Year of Award

The relative contribution of various sources to the post-doctoral training of full-time doctoral faculty can be seen in Table 30. As was the case for pre-doctoral awards to Ph.D. faculty, NIH was the single largest source of post-doctoral support (44 percent of awards given) for all time periods combined. Although NIH provided only 12 percent of post-doctoral awards that began prior to 1950, by the 1950's this was the largest single source of

TABLE 29

DISTRIBUTION OF FULL-TIME DOCTORAL MEDICAL SCHOOL FACULTY
BY NUMBER OF POST-DOCTORAL AWARDS, WITHIN DEGREE TYPE
(1976-77)

NUMBER OF POST-DOCTORAL AWARDS	DEGREE TYPE						TOTAL FULL- TIME DOCTORAL FACULTY	
	M.D. & Ph.D		M.D.		PH.D./O.H.D.		Count	Percent of Degree
	Count	Percent of Degree	Count	Percent of Degree	Count	Percent of Degree		
None	739	38	10509	48	4853	46	16101	47
One	713	37	7388	34	4038	38	12139	36
Two	312	16	2755	13	1221	12	4288	13
Three	122	6	803	4	301	3	1226	4
Four	31	2	243	1	80	1	354	1
TOTAL FULL-TIME DOCTORAL FACULTY	1917	99	21698	100	10493	100	34108 ¹	101

¹Excludes 1950 of 36058 full-time doctoral faculty (5.4%) whose number of pre-doctoral awards is unknown.

TABLE 30

DISTRIBUTION OF POST-DOCTORAL AWARDS TO FULL-TIME DOCTORAL MEDICAL SCHOOL FACULTY
BY SOURCE OF AWARD AND YEAR AWARD BEGAN
(1976-1977)

SOURCE OF POST-DOCTORAL AWARD	YEAR AWARD BEGAN								TOTAL POST- DOCTORAL AWARDS TO FULL-TIME DOCTORAL FACULTY	
	Prior to 1950		1950-1959		1960-1969		1970-1976			
	Number of Awards	Percent of Awards	Number of Awards	Percent of Awards	Number of Awards	Percent of Awards	Number of Awards	Percent of Awards	Number of Awards	Percent of Awards
NIH	174	12	1582	32	6501	52	3032	48	11289	44
Other Public Health Service (Including NINH)	86	6	537	11	318	3	237	4	2178	9
SRS	0	0	5	*		*	18	*	64	*
OE	0	0	1	*	6	*	5	*	12	*
Other DHEW	10	1	73	1	378	3	321	5	782	3
VA	42	3	49	1	171	1	252	4	514	2
NSF	3	*	76	2	228	2	72	1	379	1
Other Federal Government	141	9	242	5	305	2	97	2	785	3
Foreign	35	2	127	3	247	2	138	2	547	2
Industry	31	2	111	2	112	1	67	1	321	1
Foundation	445	30	1367	27	1792	14	1096	17	4700	18
State	2	*	1	*	4	*	17	*	24	*
Academic - Foreign	28	2	51	1	106	1	92	1	277	1
Academic	340	23	498	10	972	8	708	11	2518	10
Miscellaneous Other	163	11	255	5	376	3	226	3	1020	4
TOTAL POST-DOCTORAL AWARDS TO FULL-TIME DOCTORAL FACULTY	1500	101	4975	100	12557	99	6378	100	25410	98

support (32 percent of awards). In the 1960's and continuing in the period from 1970 to 1976, NIH provided about half of all post-doctoral support (52 percent of awards in the 1960-69 period, and 48 percent for 1970-76).

Private foundations accounted for the next highest percentage of post-doctoral awards, having provided 18 percent of awards granted in all time periods. The percentage of post-doctoral support given by private foundations, has decreased over time, however, from 30 percent of awards that began prior to 1950, to 27 percent of the awards given in the 1950's, 14 percent of those in the 1960's, and 17 percent of those given between 1970 and 1976.

All Federal Government sources, taken together, accounted for about the same percentage of post-doctoral awards as was seen for pre-doctoral support in all four time periods combined (just over 60 percent). Federal Government sources provided 31 percent of post-doctoral awards that began prior to 1950, 52 percent of awards in the 1950's, 70 percent of those in the 1960's, and 64 percent of post-doctoral awards that began in the 1970-76 time period.

6. Discipline of Post-Doctoral Awards, by Year of Award

Table 29 shows the relative distribution of post-doctoral awards to all full-time salaried faculty holding a doctorate degree. Table 31 displays data on the distribution of disciplines for which these awards were granted, in each of four time periods.

Thirty-nine percent of post-doctoral awards given in all time periods combined were for Basic Science disciplines, while 56 percent of post-doctoral awards were for disciplines in the Clinical Sciences. Physical Sciences, Behavioral and Social Sciences, Allied Health, Administration, and "Other" disciplines each accounted for two percent or fewer of all post-doctoral awards.

The relative distribution of post-doctoral awards among the various disciplines remained quite stable over all four time periods shown. The largest single area of post-doctoral support was Internal Medicine (18 percent of all post-doctoral awards), followed

TABLE 31
DISTRIBUTION OF POST-DOCTORAL AWARDS TO FULL-TIME DOCTORAL MEDICAL SCHOOL FACULTY BY DISCIPLINE OF AWARD AND YEAR AWARD BEGAN
(1976-77)

DISCIPLINE OF POST-DOCTORAL AWARD	YEAR AWARD BEGAN								TOTAL POST-DOCTORAL AWARDS TO FULL-TIME DOCTORAL FACULTY	
	Prior to 1950		1950-1959		1960-1969		1970-1976			
	# of Awards	% of Awards	# of Awards	% of Awards	# of Awards	% of Awards	# of Awards	% of Awards	# of Awards	% of Awards
BASIC SCIENCE										
Anatomy	39	3	122	2	275	2	155	2	591	2
Biochemistry	165	11	684	14	1522	12	734	11	3105	12
Biology, All	9	1	36	1	164	1	86	1	295	1
Biophysics	16	1	46	1	159	1	53	1	274	1
Genetics	9	1	61	1	263	2	120	2	453	2
Immunology	10	1	40	1	233	2	163	3	446	2
Micro-Parasitology	45	3	144	3	415	3	213	3	817	3
Pathology-Basic	61	4	289	6	502	4	139	2	991	4
Pharmacology	42	3	136	3	453	4	276	4	907	4
Physiology	148	10	376	8	933	7	463	7	1921	8
All Other	18	1	25	1	48	*	16	*	197	*
(Total Basic Science)	(562)	(38)	(1959)	(40)	(4967)	(40)	(2418)	(38)	(9907)	(39)
CLINICAL SCIENCE										
Anesthesiology	7	*	36	1	141	1	92	1	276	1
Dermatology	11	1	23	*	61	*	24	*	119	*
Endocrinology	41	3	182	4	439	4	227	4	889	4
Family Practice	0	0	1	*	14	*	9	*	24	*
Internal Medicine	208	14	808	17	2228	18	1372	21	4616	18
General Medicine	93	6	176	4	252	2	25	*	546	2
Nuclear Medicine	8	1	21	*	76	1	52	1	157	1
Neurology	32	2	134	3	276	2	102	2	544	2
Ob-Gyn	24	2	52	1	123	1	84	1	283	1
Pathology-Clinical	42	3	167	3	359	3	98	2	666	3
Pediatrics	88	6	237	5	748	6	531	8	1604	6
Physical Medicine and Rehabilitation	11	1	37	1	51	*	20	*	119	*
Psychiatry	78	5	222	5	581	5	243	4	1124	4
Public Health and Preventive Medicine	20	1	48	1	135	1	69	1	272	1
Radiology	25	2	116	2	309	2	218	3	668	3
Surgery	108	7	340	7	849	7	391	6	1688	7
All Other	32	2	85	2	218	2	155	2	490	2
(Total Clinical Science)	(828)	(57)	(2685)	(55)	(6860)	(55)	(3712)	(58)	(14085)	(56)
PHYSICAL SCIENCE & ENGINEERING										
	62	4	105	2	292	2	124	2	584	2
BEHAVIORAL & SOCIAL SCIENCE										
	6	*	89	2	232	2	125	2	452	2
ALLIED HEALTH										
	3	*	26	1	57	1	42	1	138	1
ADMINISTRATION										
	0	0	0	0	3	*	7	*	10	*
OTHER										
	2	*	2	*	33	*	11	*	48	*
TOTAL POST-DOCTORAL AWARDS TO FULL-TIME DOCTORAL FACULTY										
	1464	100	4866	100	12454	100	6439	100	25224	100

by Biochemistry (12 percent), Physiology (8 percent), Surgery (7 percent), and Pediatrics (6 percent). Each of the other disciplines accounted for fewer than five percent of all post-doctoral awards.

VII. SPECIAL TOPICS

A. Faculty Characteristics by Sex

Tables 32 through 35 compare male and female faculty at U.S. medical schools on several demographic, appointment, and employment history characteristics.

1. Type of Employment by Sex

Table 32 indicates that there were no major differences by sex in terms of type of employment of 1976-77 faculty. Fifty-nine percent of males and 63 percent of females held SFT appointments; 12 percent of faculty of each sex had SFTA appointments; 13 percent of male and 9 percent of female faculty had GFT positions; 5 percent of males and 4 percent of females held GFTA appointments. Part-time (PT) employment accounted for 7 percent of males and 10 percent of females; PTA appointments accounted for 3 percent of faculty of each sex.

Tables 33 through 35 are based on the 89 percent of male faculty and the 88 percent of female faculty employed at medical schools on a full-time basis.

2. Sex of Faculty within Degree Type

It can be seen from Table 33 that 15 percent of all full-time medical school faculty in 1976-77 were females -- including 5 percent of the M.D. and Ph.D. degree group, 10 percent of M.D. faculty, 15 percent of Ph.D./O.H.D. faculty, and 56 percent of non-doctoral faculty.

Only 2 percent of women (compared with 6 percent of men) on medical school faculties had both an M.D. and a Ph.D. degree. Forty-one percent of women (compared with 62 percent of men) had M.D.'s, 29 percent of women (vs. 28 percent of men) had Ph.D. or O.H.D.'s, and 28 percent of women (vs. 4 percent of men) had no doctoral degree.

3. Academic Ranks of Male vs. Female Faculty, within Degree Type

In Table 34 the ranks of male and female full-time faculty are compared, within each degree type.

TABLE 32

TYPE OF EMPLOYMENT OF MEDICAL SCHOOL FACULTY BY SEX
(1976-77)

SEX		TYPE OF EMPLOYMENT								TOTAL
		STRICT FULL-TIME		GEOGRAPHIC FULL-TIME		FULL-TIME TOTAL	PART-TIME		PART-TIME TOTAL	
		Medical School	Affil. Instit.	Medical School	Affil. Instit.		Medical School	Affil. Instit.		
		(SFT)	(SFTA)	(GFT)	(GFTA)		(PT)	(PTA)		
Male	Count % of Males	22030 59	4412 12	4942 13	1840 5	(33224) (89)	2739 7	1267 3	(4006) (11)	37230 100
Female	Count % of Females	4150 63	801 12	584 9	260 4	(5795) (88)	640 10	178 3	(818) (12)	6613 100
TOTAL	Count % of Total	26180 60	5213 12	5526 13	2100 5	(39019) (89)	3379 8	1445 3	(4824) (11)	43843 100

¹Excludes 1235 of 45078 faculty (2.7%) whose sex or type of employment is unknown.

TABLE 33
SEX OF FULL-TIME MEDICAL SCHOOL FACULTY
WITHIN DEGREE TYPE
(1976-77)

DEGREE	M A L E		F E M A L E		PERCENTAGE OF WOMEN WITH EACH DEGREE TYPE	PERCENTAGE OF MEN WITH EACH DEGREE TYPE
	Count	Percent of Degree	Count	Percent of Degree		
M.D. & Ph.D.	1917	95	98	5	2	6
M.D.	20690	90	2380	10	41	62
Ph.D./D.H.O.	9286	85	1654	15	29	28
Non-Doctoral	1315	44	1649	56	28	4
TOTAL ¹	33202	85	5781	15	100	100

¹The table excludes 192 of 39175 full-time faculty (0.5%) whose degree type or sex is unknown.

TABLE 34

RANK AND BASIC/CLINICAL DEPARTMENT AFFILIATION OF FULL-TIME MEDICAL SCHOOL FACULTY BY SEX, WITHIN DEGREE TYPE
(1976-77)

RANK AND BASIC/CLINICAL DEPARTMENT AFFILIATION	PERCENT OF DEGREE AND SEX								PERCENT OF TOTAL FULL- TIME FACULTY	
	M.D. & Ph.D.		M.D.		Ph.D./D.H.D		Non-Doctoral		Male	Female
	Male	Female	Male	Female	Male	Female	Male	Female		
Professor										
Basic Science Departments	18	8	4	1	20	7	1	1	9	3
Clinical Science Departments	27	14	24	8	7	3	2	1	19	5
(Total)	(45)	(22)	(28)	(9)	(27)	(10)	(3)	(2)	(28)	(8)
Associate Professor										
Basic Science Departments	8	7	2	3	18	12	1	1	7	5
Clinical Science Departments	16	23	19	16	8	7	5	4	16	11
(Total)	(24)	(30)	(21)	(19)	(26)	(19)	(6)	(5)	(23)	(16)
Assistant Professor										
Basic Science Departments	6	8	2	5	20	25	5	4	8	11
Clinical Science Departments	14	20	30	37	12	17	20	16	24	16
(Total)	(20)	(28)	(32)	(42)	(32)	(42)	(25)	(20)	(32)	(37)
Instructor										
Basic Science Departments	*	0	1	2	2	4	8	9	1	4
Clinical Science Departments	2	5	8	16	3	6	26	36	7	18
(Total)	(2)	(5)	(9)	(18)	(5)	(10)	(34)	(45)	(8)	(22)
Clinical Ranks										
Basic Science Departments	*	0	*	*	*	*	*	*	*	*
Clinical Science Departments	2	4	5	7	1	1	3	4	3	4
(Total)	(2)	(4)	(5)	(7)	(1)	(1)	(3)	(4)	(3)	(4)
Lecturer and Other										
Basic Science Departments	2	5	*	1	4	10	8	6	2	5
Clinical Science Departments	4	5	3	4	5	9	21	19	4	9
(Total)	(6)	(10)	(3)	(5)	(9)	(19)	(29)	(25)	(6)	(14)
TOTAL FULL-TIME FACULTY										
Basic Science Departments	34	28	9	12	64	58	23	21	27	28
Clinical Science Departments	65	71	89	88	36	43	77	80	73	73
(Total)	(99)	(99)	(98)	(100)	(100)	(101)	(100)	(101)	(100)	(101)
(Count of Full-Time Faculty on Which Percentages are Based:)	(1862)	(96)	(20284)	(2361)	(8595)	(1524)	(1010)	(1198)	(31752)	(5179)

Each rank is also separated into Basic Science vs. Clinical Science departments.

Within each of the three doctoral degree groups, the relative percentage of professors is at least twice as high for males as for females, while the relative percentage of instructors and of lecturer-and-other ranks is twice as high for female as for full-time male faculty.

4. Other Characteristics by Sex, within Degree Type

Table 35 shows nine other faculty characteristics by sex:

Among M.D. faculty (M.D. and Ph.D. or M.D.-only) women were slightly younger than men, on the average (mean age of 42.5 years for women, vs. 44.5 years for men). The average age was about the same for both sexes within the Ph.D./O.H.D. group (males 42.6 years, females 42.2 years), and within the non-doctoral group (males 41.9 years, and women 42.0 years).

Men and women had the same distributions of major ethnic groups within the Ph.D./O.H.D. and non-doctoral degree groups. Among M.D. faculty, however, a lower percentage of women than of men were of Caucasian origin (78 percent vs. 88 percent), and relatively more women than men were of minorities other than those designated by AAMC as under-represented in U.S. medical education (19 percent vs. 10 percent).

Men and women with M.D.'s had the same relative distributions of primary specialty/discipline areas. Among Ph.D./O.H.D. and non-doctoral faculty, higher percentages of men than of women were in Physical Science disciplines, and relatively more women than men were in the Behavioral and Social Sciences. Also among non-doctoral faculty, higher percentages of women than of men were in Allied Health disciplines, and relatively more men than women were in Administration.

Within the two doctoral degree groups, male full-time faculty tended to have a wider range of areas of responsibility than did female faculty. About

TABLE 35

DEMOGRAPHIC, EMPLOYMENT HISTORY, AND APPOINTMENT CHARACTERISTICS
OF FULL-TIME MEDICAL SCHOOL FACULTY BY SEX, WITHIN DEGREE TYPE
(1976-77)

DESCRIPTION	PERCENT OF DEGREE AND SEX					
	M.D. & Ph.D. Or M.D. Only		Ph.D./O.H.O.		Non- Doctoral	
	Male	Female	Male	Female	Male	Female
<u>Age</u>						
20-29	1	3	2	4	9	16
30-34	13	20	20	22	20	18
35-39	21	22	23	22	18	14
40-44	19	17	16	15	13	11
45-49	16	15	14	13	14	11
50-54	12	11	12	11	12	11
55-59	8	7	6	8	9	9
60-64	5	3	4	4	4	6
Over 64	3	2	2	2	1	3
(Total)	(98)	(100)	(99)	(101)	(100)	(99)
<u>Race/Ethnic Group</u>						
Caucasian	88	78	89	89	89	90
AAMC Under-Rep. Minorities ¹	2	4	2	3	7	7
Other Minorities	10	19	9	9	4	3
(Total)	(100)	(101)	(100)	(101)	(100)	(100)
<u>Primary Specialty Group</u>						
Basic Sciences	11	11	66	64	14	12
Clinical Sciences	88	89	10	10	20	16
Physical Sciences & Engineering	*	*	6	3	14	2
Behavioral & Social Sciences	*	*	12	16	15	24
Allied Health	*	*	4	5	22	42
Administration	*	*	1	*	11	2
Other	*	*	1	1	5	2
(Total)	(100)	(101)	(100)	(99)	(101)	(100)
<u>Number of Responsibilities</u>						
One	8	12	14	22	34	35
Two	27	37	60	58	39	39
Three	43	40	20	17	20	20
Four	21	10	5	4	6	5
Five	1	*	*	*	1	1
(Total)	(100)	(99)	(99)	(101)	(100)	(100)
<u>Teaching Responsibility</u>						
Full Teaching	4	5	3	4	8	15
Part Teaching	90	87	83	76	59	59
No Teaching	6	8	14	20	33	26
(Total)	(100)	(100)	(100)	(100)	(100)	(100)
<u>Research Responsibility</u>						
Full Research	2	2	10	17	12	8
Part Research	65	51	80	71	34	25
No Research	33	47	10	13	54	67
(Total)	(100)	(100)	(100)	(101)	(100)	(100)

¹ Includes Black American, American Indian, Mexican American, and Puerto Rican.

TABLE 35 (Cont'd)

DESCRIPTION	PERCENT OF DEGREE AND SEX					
	M.D. & Ph.D. Or M.D. Only		Ph.D./O.H.D.		Non- Doctoral	
	Male	Female	Male	Female	Male	Female
<u>Years in Current Employment</u>						
0 - 5	47	54	41	53	47	51
6 - 10	26	25	30	26	30	26
11 - 15	12	10	14	10	12	10
16 - 20	8	7	8	7	7	8
21 - 25	4	2	4	3	3	2
Over 25	3	2	3	2	1	3
(Total)	(100)	(100)	(100)	(101)	(100)	(100)
<u>Total Number of Professional Jobs</u>						
One (Current)	44	54	37	36	27	30
Two	30	24	31	27	30	29
Three	15	12	17	17	20	18
Four	7	5	9	11	13	10
Five	3	3	4	4	6	6
Six or Seven	2	2	2	4	4	6
(Total)	(101)	(100)	(100)	(99)	(100)	(99)
<u>Original Employment Source</u>						
<u>Professional Employment</u>						
U.S. Active Military Service	6	*	1	*	3	*
U.S. Government (Incl. P.H.S.)	7	3	6	4	6	4
U.S. State/Local Government	1	2	2	3	8	13
U.S. Hospital (Non-Federal)	2	4	2	2	7	10
Private Practice	8	6	1	*	1	1
Volunteer - U.S. Medical School	1	1	*	1	*	1
U.S. Medical School - Non-Faculty	*	*	1	3	6	5
Faculty - U.S. Non-Medical School	2	1	10	11	8	10
Foreign - Academic	2	1	2	2	*	*
Foreign - Non-Academic	*	1	*	*	1	*
Foundation/Research Institution	*	*	2	2	1	1
Private Business/Industry	*	*	2	1	6	2
Other Employment	3	3	6	6	15	16
(Total Employment)	(33)	(22)	(35)	(35)	(62)	(63)
<u>Professional Training</u>						
U.S. Medical School	4	4	6	7	3	2
Other U.S. Educational Institution	1	1	16	18	13	16
NIH/NIH Training Program	15	14	22	18	4	4
Other Training Program	5	9	6	8	3	4
Foreign Educational Institution	1	1	2	1	*	*
Internship/Residency	39	47	*	1	1	*
(Total Training)	(66)	(76)	(52)	(53)	(24)	(26)
<u>Non-Medical School - Empl./Training</u>						
Status Unknown	2	2	14	12	13	11
(Total, All Employment Sources)	(101)	(100)	(101)	(100)	(99)	(100)
(Percentages are Based on Approximate ¹ Numbers of Full-Time Faculty:)	(22601)	(2478)	(9286)	(1654)	(1315)	(1649)

¹ Actual base varies for each of the variables, depending on the number of cases with complete data on each item.

the same percentage of male M.D.'s as of female M.D.'s were involved in teaching responsibilities. The percentage of faculty with some teaching activity was slightly higher for men than for women in the Ph.D./O.H.D. group, and slightly higher for women than for men among non-doctoral faculty. Female M.D.'s had a considerably lower rate of involvement in research responsibilities than did male M.D.'s (53 percent vs. 67 percent); a similar contrast occurred in the non-doctoral degree group. Among Ph.D./O.H.D.'s about the same percentage of males (90 percent) as of females (88 percent) had some involvement in research; but the percentage of faculty involved only in research was considerably higher for female Ph.D./O.H.D.'s (17 percent) than for male Ph.D./O.H.D.'s (10 percent).

The average length of employment in the current full-time faculty position was slightly longer for males than for females in the M.D. degree group (8.0 years vs. 7.0 years) and in the Ph.D./O.H.D. group (8.5 years vs. 7.2 years), but not in the non-doctoral group (7.5 years for both male and female faculty).

The numbers of previous professional jobs were similar for men and for women in the Ph.D./O.H.D. and non-doctoral groups, but among M.D. faculty somewhat higher percentages of men than of women (57 percent vs. 46 percent) had some professional job experience prior to their current faculty appointment.

Few noteworthy differences are evident in the original employment sources of male vs. female full-time faculty, particularly among the Ph.D./O.H.D. and non-doctoral degree groups. Among M.D. faculty, 33 percent of men vs. 22 percent of women first came to medical school faculties from other professional employment rather than directly from professional training. Correspondingly, 47 percent of female M.D.'s as compared with 39 percent of male M.D.'s, were recruited to medical school faculties directly from internship or residency programs.

B. Faculty Characteristics by Race/Ethnic Identification

Tables 36 through 39 describe medical school

faculty characteristics by racial/ethnic groups. The item of the FRS Accession Form having to do with race/ethnic group had a higher rate of missing information than did other items: 4 percent of the faculty indicated they "did not wish to respond" to the question; another 4 percent did not provide any response.

1. Type of Employment by Race/Ethnic Origin

In Table 36 the distribution of faculty across various categories of employment is shown for nine racial/ethnic backgrounds.¹ Puerto Ricans had a distribution of employment types markedly different from that of Caucasian faculty. The percentage of Puerto Ricans with full-time appointments to medical school faculties was 78 percent, compared with 89 percent of Caucasians. The contrast was greatest for geographic full-time employment categories (GFT plus GFTA) which accounted for only 7 percent of Puerto Ricans as compared with 18 percent of Caucasian faculty. Seven of the eight minority groups listed had higher percentages of faculty with the SFTA type of employment than the 11 percent for Caucasian faculty.

2. Race/Ethnic Origin of Full-Time Faculty by Degree Type

Table 37 shows the 1976-77 and 1971-72 distributions of faculty by race/ethnic origin and degree type, for all full-time faculty. Of the 95 percent of 1976-77 full-time faculty and the 93 percent of 1971-72 full-time faculty whose information on race/ethnic background is known, 88 percent in each

¹There were only 19 American Indians in U.S. medical school faculties in 1976-77; such a small base does not warrant extensive percentage comparison with other ethnic groups.

TABLE 36

TYPE OF EMPLOYMENT OF MEDICAL SCHOOL FACULTY
BY RACE/ETHNIC ORIGIN
(1976-77)

RACE/ETHNIC ORIGIN		TYPE OF EMPLOYMENT								TOTAL	
		STRICT FULL-TIME		GEOGRAPHIC FULL-TIME		FULL-TIME TOTAL	PART-TIME		PART-TIME TOTAL		
		Medical School	Affil. Instit.	Medical School	Affil. Instit.		Medical School	Affil. Instit.			
		(SFT)	(SFTA)	(GFT)	(GFTA)		(PT)	(PTA)			
<u>CAUCASIAN</u>		Count	22095	4063	4668	1792	(32618)	2897	1192	(4089)	36707
		% of Ethnic Group	60	11	13	5	(89)	8	3	(11)	100
<u>AAMC UNDEP-REPRESENTED MINORITIES</u>											
<u>Black American</u>		Count	414	96	107	27	(644)	77	38	(115)	759
		% of Ethnic Group	54	13	14	4	(85)	10	5	(15)	100
<u>American Indian</u>		Count	10	3	3	2	(18)	1	0	(1)	19
		% of Ethnic Group	53	16	16	10	(95)	5	0	(5)	100
<u>Mexican American</u>		Count	45	8	9	1	(63)	8	3	(11)	74
		% of Ethnic Group	61	11	12	1	(85)	11	4	(15)	100
<u>Puerto Rican</u>		Count	168	39	21	1	(229)	47	19	(66)	295
		% of Ethnic Group	57	13	7	*	(78)	16	6	(22)	100
<u>(Total)</u>		Count	(637)	(146)	(140)	(31)	(954)	(133)	(60)	(193)	(1147)
		% of Ethnic Group	(56)	(13)	(12)	(3)	(83)	(12)	(5)	(17)	(100)
<u>OTHER MINORITIES</u>											
<u>Other Hispanic</u>		Count	322	96	90	32	(540)	44	19	(63)	603
		% of Ethnic Group	53	16	15	5	(90)	7	3	(10)	100
<u>Chinese/Japanese</u>		Count	776	173	95	47	(1091)	53	26	(79)	1170
		% of Ethnic Group	66	15	8	4	(93)	4	2	(7)	100
<u>Other Asian</u>		Count	838	327	181	87	(1433)	91	39	(130)	1563
		% of Ethnic Group	54	21	12	6	(92)	6	2	(8)	100
<u>Other</u>		Count	431	86	103	36	(656)	45	30	(75)	731
		% of Ethnic Group	59	12	14	5	(90)	6	4	(10)	100
<u>(Total)</u>		Count	(2367)	(682)	(469)	(202)	(3720)	(233)	(114)	(347)	(4067)
		% of Ethnic Group	(58)	(17)	(12)	(5)	(92)	(6)	(3)	(8)	(100)
<u>TOTAL</u>		Count	25099	4891	5277	2025	(37292)	3263	1366	(4629)	41921 ¹
		% of Total	60	12	13	5	(89)	8	3	(11)	100

¹Excludes 3157 of 45078 faculty (7.0%) whose race/ethnic origin or type of employment is unknown.

TABLE 37

RACE/ETHNIC ORIGIN OF FULL-TIME MEDICAL SCHOOL FACULTY,
WITHIN DEGREE TYPE
(1976-77 and 1971-72)

RACE/ETHNIC ORIGIN	D E G R E E T Y P E															
	M.D. & Ph.D.				M.D.				Ph.D./O.H.D.				Non-Doctoral			
	1976-77		1971-72		1976-77		1971-72		1976-77		1971-72		1976-77		1971-72	
	Count	% of Degree	Count	% of Degree	Count	% of Degree	Count	% of Degree	Count	% of Degree	Count	% of Degree	Count	% of Degree	Count	% of Degree
Caucasian	1582	83	1429	83	19073	87	15070	87	9356	89	7545	90	2537	90	2499	89
AAMC Under-Represented Minorities																
Black American	12	1	21	1	328	2	285	2	145	1	101	1	162	6	145	5
American Indian	3	*	2	*	10	*	9	*	2	*	3	*	3	*	1	*
Mexican American	3	*	2	*	33	*	28	*	24	*	12	*	4	*	11	*
Puerto Rican	7	*	10	1	167	1	252	2	27	*	49	1	28	1	69	2
(Total)	(25)	(1)	(35)	(2)	(538)	(2)	(574)	(4)	(198)	(2)	(165)	(2)	(197)	(7)	(227)	(7)
Other Minorities																
Other Hispanic	25	1	24	1	451	2	359	2	51	1	40	1	10	*	14	1
Chinese/Japanese	153	8	139	8	478	2	346	2	408	4	258	3	47	2	35	1
Other Asian	95	5	66	4	1006	5	602	4	313	3	208	2	16	1	15	1
Other	34	2	25	2	429	2	291	2	165	2	128	2	25	1	22	1
(Total)	(307)	(16)	(254)	(15)	(2364)	(11)	(1598)	(10)	(937)	(9)	(634)	(8)	(98)	(4)	(86)	(4)
TOTAL FULL-TIME FACULTY	1914	100	1718	100	21975	100	17242	101	10491	100	8344	100	2832	101	2812	100

TABLE 37 (Cont'd.)

RACE/ETHNIC ORIGIN - TOTAL FULL-TIME MEDICAL SCHOOL FACULTY

RACE/ETHNIC ORIGIN	TOTAL FULL-TIME FACULTY			
	1976-77		1971-72	
	Count	% of Total	Count	% of Total
<u>Caucasian</u>	32548	88	26543	88
<u>AAMC Under-Represented Minorities</u>				
Black American	647	2	553	2
American Indian	18	*	15	*
Mexican American	64	*	53	*
Puerto Rican	229	1	380	1
(Total)	(958)	(3)	(1001)	(3)
<u>Other Minorities</u>				
Other Hispanic	537	1	437	2
Chinese/Japanese	1086	3	778	3
Other Asian	1430	4	891	3
Other	653	2	466	2
(Total)	(3706)	(10)	(2572)	(10)
TOTAL FULL-TIME FACULTY	37212 ¹	101	30116 ¹	101

¹Excludes 1963 of 39175 1976-77 full-time faculty (5.0%) and 2355 of 32471 1971-72 full-time faculty (7.3%) whose race/ethnic origin or degree type is unknown.

year were Caucasian. Three percent in each year were members of AAMC's under-represented minorities.² This group includes Black Americans (2 percent), American Indians and Mexican Americans (each less than 0.5 percent), and Puerto Ricans (1 percent). Other minorities accounted for 10 percent of full-time faculty in each year -- other Hispanics, 1 percent; Chinese/Japanese, 3 percent; other Asian, 4 percent; and "other", 2 percent.

Non-Caucasian faculty comprised 17 percent of the M.D. & Ph.D. group in each year, 13 percent of the M.D. group, and 10 or 11 percent of Ph.D./O.H.D.'s and of non-doctoral full-time faculty in each time period. The AAMC under-represented minorities comprised 7 percent of full-time non-doctoral faculty in 1976-77, as compared with 1 or 2 percent of each of the three doctoral degree groups. All other minorities accounted for 16 percent of 1976-77 full-time M.D. & Ph.D. faculty, 11 percent of M.D.'s, 9 percent of Ph.D./O.H.D.'s, and 4 percent of non-doctoral faculty.

3. Rank by Ethnic Groups, within Degree Type

Table 38 compares the rank distribution of full-time faculty in the three major ethnic groups; the table is based on those 32,510 of the 39,175 full-time 1976-77 faculty (83 percent) who were U.S. citizens and who had information in the FRS files on degree, race/ethnic origin, and rank.

²The term "under-represented minorities" was derived from an assessment of the proportion of each minority category in the U.S. population as a whole, compared to the representation in U.S. medical education. Source: Report of the AAMC Task Force to the Inter-Association Committee on Expanding Educational Opportunities in Medicine for Blacks and Other Minority Students, April 22, 1970. The 1970 Task Force focused on student information and recommendations; the Faculty Roster System introduced the question on faculty ethnic identification at a later date (the 1971-72 survey).

TABLE 38

RANK OF FULL TIME MEDICAL SCHOOL FACULTY WITH U.S. CITIZENSHIP,
BY MAJOR ETHNIC GROUP AND DEGREE TYPE
(1976-77)

RANK	PERCENTAGE DISTRIBUTION OF RANKS, WITHIN ETHNIC GROUP AND DEGREE TYPE												
	M.D. & Ph.D			M.D.			Ph.D./O.H.D.			Non-Doctoral			
	Cauca- sian	Under- Rep. Minor.	Other Minor.	Cauca- sian	Under- Rep. Minor.	Other Minor.	Cauca- sian	Under- Rep. Minor.	Other Minor.	Cauca- sian	Under- Rep. Minor.	Other Minor.	
Professor	53	46	51	32	23	24	26	19	20	2	0	2	
Associate Professor	24	27	19	22	21	21	26	24	30	7	6	7	
Assistant Professor	16	4	24	31	31	32	34	42	31	25	22	10	
Instructor	2	9	2	7	16	11	5	6	4	38	48	42	
Clinical Ranks	2	0	2	5	7	8	1	1	1	3	7	3	
Lecturer and Other	4	14	2	3	2	4	9	8	13	24	17	36	
TOTAL FULL-TIME FACULTY WITH U.S. CITIZEN- SHIP	Percent (Count)	101 (1324)	100 (22)	100 (85)	100 (17615)	100 (518)	100 (777)	101 (8802)	100 (196)	99 (419)	99 (2473)	100 (195)	100 (59)

Within each doctoral degree category, faculty in the two groups of minorities had lower percentages of professors than did Caucasian faculty. Within each of the four degree types, under-represented minorities had the lowest percentage of professors of the three ethnic groups. Differences among the three ethnic groups are seen in percentages of faculty in the lower academic ranks, within certain degree groups: Among M.D. & Ph.D.'s, only 4 percent of faculty in the under-represented minority groups (on a very small numerical base of 22) held the rank of assistant professor, as compared with 24 percent of other minorities, and 16 percent of Caucasians in this degree group. Also in the M.D. & Ph.D. category, 23 percent of under-represented minority faculty were employed in the ranks of instructor or lecturer-and-other, as compared with 4 percent of other minority M.D. & Ph.D. faculty, and 6 percent of Caucasians.

Among M.D. faculty the three ethnic groups had nearly identical percentages of associate professors (21 percent) and of assistant professors (31 percent). The two minority groups had 16 percent and 11 percent of faculty in the rank of instructor, compared with 7 percent of Caucasian M.D.'s employed in that rank.

Among Ph.D./O.H.D. faculty, under-represented minorities had a higher percentage of assistant professors (42 percent) than did Caucasians (34 percent) or other minorities (31 percent); faculty in the "other minorities" category also had a higher percentage of associate professors (30 percent) than did the other two ethnic groups (26 and 24 percent).

Among non-doctoral faculty only 10 percent of the "other minorities" group held the rank of assistant professor, compared with 25 percent of Caucasians and 22 percent of under-represented minorities. A particularly high percentage of other minority non-doctoral faculty were employed in the lecturer-and-other rank category (36 percent).

4. Other Characteristics by Ethnic Group, within Degree Type

Faculty in the three major ethnic groups are compared on nine other variables in Table 39 which is, like Table 38, based only on faculty with U.S. citizenship.

No large contrasts are seen among the major ethnic groups in terms of age of faculty. Average ages were within one year for the three ethnic groups, within each degree type.

Distributions by sex were identical for non-doctoral faculty of the three ethnic groups. Among M.D.'s, however, higher percentages of minority faculty were women (16 and 15 percent) than was the case for Caucasian M.D.'s (9 percent). Among Ph.D./O.H.D.'s, there was a relatively high percentage of women among under-represented minorities (21 percent) as compared with Caucasians (15 percent) or other minority Ph.D./O.H.D.'s (17 percent).

Within each degree group shown, "other minority" faculty had the highest rate of primary specialties in the Basic Sciences. Among Ph.D./O.H.D.'s, the percentage of "other minority" faculty in Behavioral and Social Science disciplines was low (5 percent) relative to the other two ethnic groups (14 and 18 percent). Among non-doctoral faculty, under-represented minorities had a particularly high percentage of faculty in Behavioral and Social Science disciplines (35 percent), as compared with the other major ethnic groups (19 and 15 percent), and a low percentage of faculty in Allied Health disciplines (17 percent, as compared to 35 percent of the other two ethnic groups).

Within the M.D. and the non-doctoral (but not Ph.D./O.H.D.) degree groups, Caucasian faculty had a somewhat wider range of areas of responsibility. The three major ethnic groups did not differ greatly in their rates of involvement in teaching as an area of responsibility. Faculty in the under-represented minorities did have a much lower rate of involvement in research responsibility, however, as compared with faculty in the other two ethnic categories (47 percent vs. 66 and 64 percent of M.D.'s; 77 percent vs. 89 and 94 percent of Ph.D./

TABLE 39

DEMOGRAPHIC, EMPLOYMENT HISTORY, AND APPOINTMENT CHARACTERISTICS
OF FULL-TIME MEDICAL SCHOOL FACULTY WITH U.S. CITIZENSHIP BY MAJOR ETHNIC GROUP, WITHIN DEGREE TYPE
(1976-77)

DESCRIPTION	PERCENT OF ETHNIC GROUP AND DEGREE TYPE								
	M.D. & Ph.D. Or M.O.-Only			Ph.O./O.H.D.			Non-Doctoral		
	Cauca- sian	Under- Rep. Minor.	Other Minor.	Cauca- sian	Under- Rep. Minor.	Other Minor.	Cauca- sian	Under- Rep. Minor.	Other Minor.
Age									
20-29	1	1	1	3	3	2	13	11	8
30-34	13	13	7	21	15	14	19	19	19
35-39	20	16	18	22	16	18	16	17	17
40-44	18	21	22	15	24	21	11	12	20
45-49	16	18	23	14	19	20	12	17	12
50-54	13	15	15	12	10	13	12	13	15
55-59	9	8	9	7	7	8	9	6	7
60-64	6	5	4	4	3	3	6	3	2
Over 64	3	3	2	2	3	1	2	2	0
(Total)	(99)	(100)	(101)	(100)	(100)	(100)	(100)	(100)	(100)
Sex									
Male	91	84	85	85	79	83	44	44	44
Female	9	16	15	15	21	17	56	56	56
(Total)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)
Primary Specialty Group									
Basic Sciences	10	7	18	64	62	75	11	20	25
Clinical Sciences	89	92	81	10	9	12	17	17	23
Physical Sciences & Engin.	*	0	*	5	0	5	8	2	2
Behavioral & Social Sciences	*	0	0	14	18	5	19	35	15
Allied Health	*	0	*	5	8	3	35	17	35
Administration	*	1	0	1	2	0	6	6	0
Other	*	0	0	1	2	*	3	3	0
(Total)	(100)	(100)	(99)	(100)	(101)	(100)	(99)	(100)	(100)
Number of Responsibilities									
One	7	14	12	14	14	17	34	35	45
Two	26	33	30	60	57	62	39	47	40
Three	43	36	38	21	26	18	21	15	12
Four	22	17	19	5	3	4	5	3	2
Five	1	*	1	*	0	0	1	0	2
(Total)	(99)	(100)	(100)	(100)	(100)	(101)	(100)	(100)	(101)
Teaching Responsibility									
Full Teaching	3	7	6	3	5	2	12	16	16
Part Teaching	92	84	86	84	82	82	60	53	53
No Teaching	5	8	8	13	12	16	29	26	31
(Total)	(100)	(99)	(100)	(100)	(99)	(100)	(100)	(100)	(100)
Research Responsibility									
Full Research	1	1	2	9	3	14	9	8	21
Part Research	65	46	62	80	74	80	29	20	31
No Research	34	54	36	11	24	6	62	72	48
(Total)	(100)	(101)	(100)	(100)	(101)	(100)	(100)	(100)	(100)

TABLE 39 (Cont'd.)

DESCRIPTION	PERCENT OF ETHNIC GROUP AND DEGREE TYPE								
	M.D. & Ph.D. Or M.D.-Only			Ph.D./O.H.D.			Non-Doctoral		
	Cauca- sian	Under- Rep. Minor.	Other Minor.	Cauca- sian	Under- Rep. Minor.	Other Minor.	Cauca- sian	Under- Rep. Minor.	Other Minor.
Years in Current Employment									
0 - 5	44	45	44	41	46	40	48	50	56
6 - 10	26	24	28	29	29	31	28	29	30
11 - 15	13	14	16	14	11	17	11	10	5
16 - 20	9	11	9	9	6	7	8	7	5
21 - 25	4	3	3	4	7	3	3	2	2
Over 25	4	3	1	3	1	2	2	1	2
(Total)	(100)	(100)	(101)	(100)	(100)	(100)	(100)	(99)	(100)
Total No. of Professional Jobs									
One (Current)	44	53	41	39	29	30	29	27	22
Two	31	23	28	30	26	30	30	29	22
Three	14	10	17	17	18	23	19	18	19
Four	6	8	11	8	11	11	11	10	19
Five	3	4	3	4	12	3	3	3	7
Six or Seven	2	3	2	2	3	3	1	8	12
(Total)	(100)	(101)	(101)	(100)	(99)	(100)	(100)	(100)	(101)
Original Employment Source									
Professional Employment									
U.S. Active Military Service	7	4	3	1	1	1	2	2	0
U.S. Government (Incl. PHS)	7	6	6	6	4	5	5	7	2
U.S. State/Local Government	1	5	2	2	5	1	11	17	9
U.S. Hospital (Non-Federal)	2	2	4	2	4	1	10	6	9
Private Practice	9	8	5	*	*	*	1	*	*
Volunteer-U.S. Med. School	1	1	2	*	0	0	1	2	0
U.S. Med. School-Non-Faculty	*	0	*	1	2	3	5	5	13
Faculty-U.S. Non-Med. School	2	1	1	10	13	12	8	14	24
Foreign-Academic	*	0	2	1	2	2	*	0	0
Foreign-Non-Academic	*	0	*	*	0	*	*	1	0
Foundation/Research Instit.	*	*	1	2	2	3	1	1	0
Private Business/Industry	*	1	*	2	2	2	4	2	4
Other Employment	3	2	3	7	4	7	16	11	7
(Total Employment)	(33)	(30)	(30)	(34)	(39)	(37)	(64)	(68)	(68)
Professional Training									
U.S. Medical School	4	2	4	6	7	7	3	2	5
Other U.S. Ed. Institution	1	2	2	16	20	13	14	15	16
NIH/NIHM Training Program	16	12	14	22	18	23	4	4	4
Other Training Program	6	4	7	7	5	8	4	1	2
Foreign Ed. Institution	*	*	1	1	1	1	*	0	0
Internship/Residency	39	50	39	*	*	*	*	0	0
(Total Training)	(66)	(70)	(67)	(52)	(51)	(52)	(25)	(22)	(27)
Non-Med. School-Emp./Train.	2	1	3	14	11	12	12	11	6
Status Unknown									
Total, All Empl. Sources ¹	(101)	(101)	(100)	(100)	(101)	(101)	(101)	(101)	(101)
(Percentages Are Based on Approximate Numbers of Full-Time Faculty with U.S. Citizenship)	(18952)	(541)	(862)	(8303)	(196)	(419)	(2481)	(197)	(59)

¹ Actual base varies for each of the variables, depending on the number of cases with complete data on each item.

O.H.D.'s and 28 percent vs. 38 and 52 percent of non-doctoral faculty).

No large differences are seen among the three ethnic groups in terms of the number of years in their 1976-77 faculty appointments.

In terms of their professional employment histories, 53 percent of under-represented minority M.D.'s were in their first professional jobs, as compared with 44 percent of Caucasian M.D.'s and 41 percent of other minority M.D.'s. Among Ph.D./O.H.D. faculty, those in both minority groups tended to have a greater number of professional jobs prior to their 1976-77 faculty appointments than did Caucasian Ph.D./O.H.D.'s. Among non-doctoral faculty, under-represented minorities had about the same numbers of prior professional jobs, but "other minorities" had considerably more previous employment experience.

Corresponding to the just-mentioned finding that a high percentage of under-represented minority M.D.'s were in their first professional job, a higher percentage of this group (50 percent) than of the other ethnic groups (39 percent each) first came to medical school faculties directly from internship/residency programs. No large contrasts in original employment sources are seen among ethnic groups in the Ph.D./O.H.D. category. Among non-doctoral faculty, "other minorities" have a particularly high rate of recruitment from non-faculty employment at medical schools (13 percent, vs. 5 percent of each of the other two ethnic groups), and a high rate of recruitment from faculties of non-medical schools (24 percent, as compared with 8 percent of under-represented minority faculty).

C. Characteristics of M.D.'s by Country of Training

There has been considerable interest in recent years in the graduates of foreign medical school who are on the faculties of U.S. medical schools. Tables 41 and 42 show the characteristics of those M.D. faculty who are seen in Table 40 to have full-time appointments to U.S. medical school faculties. Of these faculty, 77 percent are graduates of U.S. medical schools, while 2 percent completed their M.D. training at medical schools in Canada, and 21 percent did so in foreign countries.

TABLE 40
TYPE OF EMPLOYMENT OF M.D. MEDICAL SCHOOL FACULTY
BY COUNTRY OF M.D. TRAINING
(1976-77)

COUNTRY OF M.D. TRAINING		TYPE OF EMPLOYMENT								TOTAL
		STRICT FULL-TIME		GEOGRAPHIC FULL-TIME		FULL- TIME TOTAL	PART-TIME		PART- TIME TOTAL	
		Medical School	Affil. Instit.	Medical School	Affil. Instit.		Medical School	Affil. Instit.		
		(SFT)	(SFTA)	(GFT)	(GFTA)	(PT)	(PTA)			
U. S.	Count & of U.S.-Trained	10936 48	3203 14	3735 17	1416 6	(19290) (86)	2248 10	1008 4	(3256) (14)	22546 100
Canada	Count % of Canada-Trained	261 50	72 14	97 18	37 7	(467) (89)	32 6	28 5	(60) (11)	527 100
Foreign	Count % of Foreign-Trained	2997 51	1068 18	767 13	384 1	(5216) (89)	391 7	236 4	(627) (11)	5843 100
TOTAL	Count % of Total	14194 49	4343 15	4599 16	1837 6	(24973) (86)	2671 9	1272 4	(3943) (14)	28916 100

¹Excludes 989 of 29905 M.D. faculty (3.3%) whose country of M.D. training or type of employment is unknown.

Table 41 shows the distributions of full-time M.D. faculty by country of training within five time periods of completion of M.D. training. While 2 percent of the M.D. degrees granted to 1976-77 faculty in each time period were from Canadian schools, the percentage of degrees from foreign medical schools shifted considerably -- 19 percent of degrees prior to 1940, 14 percent of M.D. degrees granted between 1940 and 1949, 25 percent of M.D.'s granted in the 1950's, 23 percent in the 60's, and 13 percent of M.D. degrees granted between 1970 and 1976.

Table 42 compares U.S., Canadian, and foreign-trained M.D.'s on a number of variables:

Foreign-trained full-time M.D. faculty tended to be slightly younger (average age of 43.6 years) than U.S.-trained (44.4 years) or Canadian-trained M.D.'s (45.6 years). There was also a higher percentage of women (15 percent) among the foreign-trained M.D.'s than among U.S. or Canadian-trained M.D.'s (9 percent each), and a very high rate of "other minority" faculty among foreign-trained M.D.'s (45 percent) as compared with U.S. or Canadian-trained M.D.'s (2 or 3 percent).

Eighteen percent of foreign-trained M.D.'s had primary specialties in the Basic Sciences, as did 9 percent of U.S.-trained and 13 percent of Canadian-trained M.D.'s. Relative to the other two groups, foreign-trained M.D.'s also had a high percentage of faculty in Anesthesiology (11 percent as compared with 4 and 6 percent). Both Canadian and foreign-trained M.D.'s had somewhat lower percentages of faculty in Internal Medicine (16 percent) than did U.S.-trained M.D.'s (22 percent), and in Surgery (10 and 12 percent) than did U.S.-trained M.D.'s (16 percent).

Although the median number of major areas of responsibility for all M.D. groups was 3, the range of areas of responsibility was somewhat narrower for foreign-trained M.D.'s (56 percent involved in three or more areas of responsibility) than for Canadian or U.S.-trained M.D.'s (62 and 66 percent, respectively, involved in three or more areas of responsibility). Foreign-trained M.D.'s had about the same rates of involvement in teaching and in research as did U.S. and Canadian-trained M.D.'s.

TABLE 41

COUNTRY OF TRAINING OF FULL-TIME M.D. MEDICAL SCHOOL FACULTY,
BY YEAR OF LAST-EARNED M.D. DEGREE
(1976-77)

COUNTRY OF M.D. DEGREE	YEAR OF LAST-EARNED M.D. DEGREE										TOTAL FULL- TIME M.D. FACULTY	
	1901-1939		1940-1949		1950-1959		1960-1969		1970-1976		Count	% of M.D.'s
	Count	% of M.D.'s	Count	% of M.D.'s	Count	% of M.D.'s	Count	% of M.D.'s	Count	% of M.D.'s		
U.S.	827	79	3208	84	5405	73	8035	76	1881	86	19356	77
Canada	22	2	80	2	169	2	183	2	16	1	470	2
Foreign	199	19	528	14	1820	25	2398	23	281	13	5226	21
TOTAL FULL-TIME M.D. FACULTY	1048	100	3816	100	7394	100	10616	101	2178	100	25052 ¹	100

¹Excludes 58 of 25110 full-time M.D.s (0.2%) whose country of M.D. training or year of last M.D. is unknown

TABLE 42

DEMOGRAPHIC, EMPLOYMENT HISTORY, AND APPOINTMENT CHARACTERISTICS
OF FULL-TIME M.D. FACULTY BY COUNTRY OF M.D. TRAINING
(1976-77)

DESCRIPTION	Percent of U.S. Trained	Percent of Canadian Trained	Percent of Foreign Trained
<u>AGE</u>			
20-29	1	1	1
30-34	14	10	13
35-39	21	19	23
40-44	19	21	21
45-49	16	19	18
50-54	12	12	12
55-59	9	10	6
60-64	5	6	3
Over 64	3	3	2
(Total)	(100)	(101)	(99)
<u>SEX</u>			
Male	91	91	85
Female	9	9	15
(Total)	(100)	(100)	(100)
<u>RACE/ETHNIC GROUP</u>			
Caucasian	95	97	54
AAMC Under-Rep. Minorities ¹	3	*	2
Other Minorities	2	3	45
(Total)	(100)	(100)	(101)
<u>PRIMARY SPECIALTY GROUP</u>			
A. Basic Sciences	9	13	18
B. Clinical Sciences			
Anesthesiology	4	6	11
Dermatology	1	1	1
Endocrinology	1	1	1
Family Practice	2	2	1
Internal Medicine	22	16	16
General Medicine	5	2	3
Nuclear Medicine	1	1	1
Neurology	3	5	3
Ob-Gyn	4	5	4
Pathology-Clinical	2	2	4
Pediatrics	11	11	10
Physical Med. & Rehab.	1	2	2
Psychiatry	9	12	7
Public Health & Prev. Med.	1	2	1
Radiology	6	6	8
Surgery	16	12	10
All Other Clinical	1	1	1
(Total Clinical)	(90)	(37)	(82)
C. Other	1	0	0
(Total)	(100)	(100)	(101)

¹Includes Black American, American Indian, Mexican American, and Puerto Rican.

TABLE 42 (Cont'd.)

DESCRIPTION	Percent of U.S. Trained	Percent of Canadian Trained	Percent of Foreign Trained
<u>NUMBER OF RESPONSIBILITIES</u>			
One	8	8	12
Two	26	30	33
Three	43	40	40
Four	22	21	15
Five	1	1	1
(Total)	(100)	(100)	(101)
<u>TEACHING RESPONSIBILITY</u>			
Full Teaching	4	4	4
Part Teaching	91	90	87
No Teaching	5	6	9
(Total)	(100)	(100)	(100)
<u>RESEARCH RESPONSIBILITY</u>			
Full Research	1	1	4
Part Research	64	66	62
No Research	35	33	34
(Total)	(100)	(100)	(100)
<u>YEARS IN CURRENT EMPLOYMENT</u>			
0-5	46	42	55
6-10	26	28	26
11-15	12	15	11
16-20	9	7	5
21-25	4	4	2
Over 25	3	3	1
(Total)	(100)	(99)	(100)
<u>TOTAL NUMBER OF PROFESSIONAL JOBS</u>			
One (current)	45	44	43
Two	31	33	26
Three	14	15	16
Four	6	5	9
Five	3	2	4
Six or Seven	1	2	3
(Total)	(100)	(101)	(101)

TABLE 42 (Cont'd.)

DESCRIPTION	Percent of U.S. Trained	Percent of Canadian Trained	Percent of Foreign Trained
<u>ORIGINAL EMPLOYMENT SOURCE</u>			
Professional Employment			
U.S. Active Military Service	7	2	1
U.S. Government (Incl. P.H.S.)	7	2	3
U.S. State/Local Government	1	2	2
U.S. Hospital (Non-Federal)	2	2	4
Private Practice	8	7	5
Volunteer - U.S. Med. School	1	1	1
U.S. Med. School - Non-Faculty	*	*	*
Faculty - U.S. Non-Med. School	2	5	2
Foreign - Academic	*	6	8
Foreign - Non-Academic	*	1	2
Foundation/Research Institution	*	*	1
Private Business/Industry	*	0	*
Other Employment	3	2	4
(Total Employment)	(32)	(30)	(33)
<u>Professional Training</u>			
U.S. Medical School	4	2	2
Other U.S. Ed. Institution	1	1	2
NIH/NIMH Training Program	16	13	10
Other Training Program	6	8	7
Foreign Ed. Institution	*	3	4
Internship/Residency	39	40	40
(Total Training)	(66)	(67)	(65)
Non-Med. School:- Empl./ Training Status Unknown	2	3	3
(Total Training Source)	(100)	(100)	(101)
<u>CITIZENSHIP</u>			
U.S.	100	54	36
Canada	*	45	1
Foreign	*	1	63
(Total)	(100)	(100)	(100)
<u>RANK</u>			
Professor	31	33	19
Associate Professor	22	23	19
Assistant Professor	31	28	35
Instructor	8	7	14
Clinical Ranks	5	4	6
Lecturer and Other	3	5	6
(Total)	(100)	(100)	(99)
(Percentages are based on Approximate Numbers of Full-time M.D. Faculty:)	(19356)	(470)	(5226)

Actual base varies for each of the variables, depending on the number of cases with complete data on each item.

In terms of professional employment histories, foreign-trained M.D.'s were in their full-time 1976-77 faculty positions for a shorter time than other M.D.'s (average of 6.4 years, as compared with 8.3 years for U.S.-trained and 8.5 years for Canadian-trained M.D.'s). Foreign-trained M.D.'s also had a somewhat higher number of professional jobs in their employment histories; 16 percent had three or more jobs prior to their 1976-77 medical school faculty appointments, as compared with 9 or 10 percent of U.S. or Canadian-trained M.D.'s. As could be expected, there was a higher rate of recruitment to medical school faculties from foreign academic sources for Canadian and foreign-trained M.D.'s (6 and 8 percent, respectively) than for U.S.-trained M.D.'s (0.2 percent). Somewhat fewer foreign-trained M.D.'s (10 percent) initially joined medical school faculties from NIH or NIMH training programs than was the case for U.S.-trained M.D.'s (16 percent).

Whereas 99.6 percent of U.S.-trained M.D. faculty were citizens of the United States, Canadian-trained M.D.'s were split 54 percent/45 percent between U.S. and Canadian citizenship. Only 36 percent of foreign-trained M.D.'s with full-time 1976-77 faculty positions had U.S. citizenship, while 63 percent were citizens of countries other than the U.S. or Canada.

A much lower percentage of foreign-trained M.D.'s (19 percent) than of U.S. or Canadian-trained M.D.'s (31 and 33 percent, respectively) held 1976-77 faculty appointments at the rank of professor. Higher percentages of foreign-trained M.D.'s held ranks of assistant professor (35 percent, as compared with about 30 percent of other M.D. faculty), and of instructor (14 percent, as compared with 7 or 8 percent of U.S. and Canadian-trained M.D.'s).

D. Characteristics of New-Hires vs. Other Faculty

The tables in this section are intended to give a picture of trends in faculty characteristics over time, by highlighting those 1976-77 faculty who were new to U.S. medical school faculties. By "new-hires" is meant all persons whose first salaried appointment to the faculty of any medical school was during the two-year

period from January 1975 through December 1976.¹ This includes 6,892 persons, or 15 percent of all salaried medical school faculty.

1. Type of Employment of New-Hires vs. Other Faculty

The distribution of new-hires and of other faculty (Table 43) were quite similar over the categories of employment. A few percent more of new-hires than of other faculty were employed in the SFTA category (15 percent vs. 11 percent), a slightly lower percentage of new-hires were in the GFT category (9 percent vs. 13 percent), and 3 percent more new-hires than others had part-time employment at medical schools (PT category). Tables 44 and 45 are based on the 87 percent of new-hires and the 89 percent of other faculty with full-time appointments.

2. Ranks of New-Hires vs. Others, by Degree Type

Table 44 shows that extremely few (2 percent) of the persons new to the medical school faculty population in the last two years were recruited at the rank of professor, although 30 percent of other full-time faculty were employed at that rank. Similarly, only 4 percent of the newly-hired faculty were recruited at the associate professor rank, whereas associate professors constitute 25 percent of faculty with greater seniority in the medical school manpower pool.

Nearly half (46 percent of full-time faculty who were first employed on medical school faculties during 1975 or 1976 held 1976-77 appointments at the rank of assistant professor--as compared with 29 percent of other faculty. New-hires also held considerably higher percentages of appointments in the other three ranks than did other faculty (instructors,

¹ The definition of "new-hires" used in this report differs from that used in earlier descriptive studies (Anderson, 1975; Griffith and McRae, 1977) in that the present report excludes persons who transferred from the faculty of one medical school to another during the period in question (which has also been changed).

TABLE 43
TYPE OF EMPLOYMENT OF NEW-HIRES VS. OTHER
MEDICAL SCHOOL FACULTY¹
(1976-77)

YEAR OF FIRST SALARIED APPOINTMENT AT A U.S. MEDICAL SCHOOL		TYPE OF EMPLOYMENT								TOTAL
		STRICT FULL-TIME		GEOGRAPHIC FULL-TIME		FULL- TIME TOTAL	PART-TIME		PART- TIME TOTAL	
		Medical School	Affil. Instit.	Medical School	Affil. Instit.		Medical School	Affil. Instit.		
		(SFT)	(SFTA)	(GFT)	(GFTA)	(PT)	(PTA)			
1975 or 1976	Count	3976	1029	631	304	(5940)	660	193	(853)	6793
	% of New-Hires	58	15	9	4	(87)	10	3	(13)	100
Prior to 1975	Count	21950	4082	4837	1769	(32638)	2687	1232	(3919)	36557
	% of Other Faculty	60	11	13	5	(89)	7	3	(11)	100
TOTAL	Count	25926	5711	5468	2073	(38578)	3347	1425	(4772)	43350
	% of Total	60	12	13	5	(89)	8		(11)	100

¹ New-hires are defined as persons beginning salaried medical school faculty employment between January 1975 and December 1976.

² Excludes 1728 of 45078 faculty (3.8%) whose year of first salaried U.S. medical school appointment or type of employment is unknown.

TABLE 44

RANKS OF NEW-HIRES VS. OTHER FULL-TIME MEDICAL SCHOOL FACULTY,
WITHIN DEGREE TYPE
(1976-77)

RANK	PERCENTAGE DISTRIBUTION OF RANKS, WITHIN DEGREE AND EMPLOYMENT CATEGORY								PERCENT OF TOTAL FULL- TIME FACULTY		
	M.D. & Ph.D.		M.D.		Ph.D./O.H.D.		Non-Doctoral		New Hires	Other Faculty	
	New- Hires	F y	New- Hires	Other Faculty	New- Hires	Other Faculty	New- Hires	Other Faculty			
Professor	4	50	2	33	3	27	1	3	2	30	
Associate Professor	8	26	3	25	5	28	1	9	4	25	
Assistant Professor	54	17	49	30	52	32	12	27	46	29	
Instructor	17	1	29	5	17	4	52	36	28	7	
Clinical Ranks	2	2	10	4	1	1	4	3	7	3	
Lecturer and Other	14	5	7	3	22	8	30	23	13	6	
TOTAL FULL-TIME FACULTY	Percent (Count)	99 (189)	101 (1790)	100 (3811)	100 (18951)	100 (1387)	100 (9465)	100 (523)	101 (2369)	100 (5910)	100 (32575)

28 percent of new-hires vs. 7 percent of other faculty; clinical ranks, 7 percent vs. 3 percent; lecturer-and-other ranks, 13 percent vs. 6 percent).

3. Other Characteristics of New-Hires vs. Other Faculty

Other characteristics of new hires are presented in Table 45:

Within each of the four degree groups, new-hires averaged at least 10 years younger than faculty who were in the medical school faculty manpower pool for longer than two years. The average ages were as follows: M.D. & Ph.D.'s, new-hires 35.0 years and other faculty 45.8 years; Ph.D./O.H.D.'s, new hires 34.1 years and other faculty 43.8 years; and non-doctoral faculty, new-hires 32.9 years and other faculty 44.0 years.

Within each degree group the percentage of women was higher among new-hires than among other full-time faculty (M.D. & Ph.D.'s, 7 percent of new-hires vs. 5 percent of other faculty; M.D.'s, 13 percent vs. 10 percent; Ph.D./O.H.D.'s, 20 percent vs. 14 percent; and non-doctoral faculty, 59 percent vs. 55 percent).

The percentage of faculty in minorities other than the AAMC under-represented minorities was much higher among newly-hired M.D. & Ph.D. faculty (29 percent) than among other M.D. & Ph.D.'s (15 percent). Five percent more of the newly-hired than of the other faculty in the M.D. and Ph.D./O.H.D. groups were members of "other minorities" (M.D.'s, 15 percent vs. 10 percent; Ph.D./O.H.D.'s, 13 percent vs. 8 percent).

Within all degree groups, lower percentages of new-hires than of other full-time faculty had primary specialties in the Basic Sciences, while higher percentages of new-hires than of other faculty had primary specialties in the Clinical Sciences. Among non-doctoral faculty there was a considerably higher percentage of new-hires in Allied Health (40 percent) than were in this discipline among other faculty (31 percent).

TABLE 45

DEMOGRAPHIC, EMPLOYMENT HISTORY, AND APPOINTMENT CHARACTERISTICS
OF NEW-HIRES VS. OTHER FULL-TIME FACULTY, WITHIN DEGREE TYPE
(1976-77)

DESCRIPTION	PERCENT OF DEGREE AND EMPLOYMENT CATEGORY							
	M.D. & Ph.D.		M.D.		Ph.D./O.H.D.		Non-Doctoral	
	New-Hires	Other Faculty	New-Hires	Other Faculty	New-Hires	Other Faculty	New-Hires	Other Faculty
Age								
20 - 29	3	*	8	*	16	1	40	7
30 - 34	37	2	55	6	49	16	32	16
35 - 39	39	13	24	22	22	23	11	17
40 - 44	14	20	5	22	6	18	7	13
45 - 49	4	21	4	18	4	15	5	14
50 - 54	2	18	2	14	1	13	2	14
55 - 59	2	12	1	9	1	7	2	10
60 - 64	1	9	1	5	*	4	1	6
Over 64	0	6	*	3	*	2	0	3
(Total)	(102)	(101)	(100)	(99)	(99)	(99)	(100)	(100)
Sex								
Male	93	90	87	90	80	86	41	45
Female	7	5	13	10	20	14	59	55
(Total)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)
Race/Ethnic Group								
Caucasian	68	84	83	88	86	90	92	89
AAMC Under-Rep. Minorities ¹	3	1	2	2	2	2	5	8
Other Minorities	29	15	15	10	13	8	3	4
(Total)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)
Primary Specialty Group								
Basic Sciences	29	35	4	10	61	67	9	13
Clinical Sciences	69	63	95	89	11	10	20	18
Physical Sciences & Engineering	1	1	*	*	6	5	3	9
Behavioral & Social Sciences	0	1	*	*	14	12	19	20
Allied Health	1	*	*	*	5	4	40	31
Administration	1	*	*	*	1	1	5	6
Other	0	*	*	*	2	1	5	3
(Total)	(100)	(101)	(100)	(100)	(100)	(100)	(101)	(100)
Number of Responsibilities								
One	20	7	11	8	23	14	38	34
Two	23	31	32	27	61	60	39	39
Three	49	40	47	42	13	20	17	21
Four	8	20	10	23	3	5	5	5
Five	1	1	*	1	*	*	1	1
(Total)	(101)	(99)	(100)	(101)	(100)	(99)	(100)	(100)
Teaching Responsibility								
Full Teaching	3	2	4	4	4	3	17	11
Part Teaching	76	91	88	91	74	83	57	60
No Teaching	22	6	8	5	22	14	26	29
(Total)	(101)	(99)	(100)	(100)	(100)	(100)	(100)	(100)

¹ Includes Black American, American Indian, Mexican American, and Puerto Rican.

TABLE 45 (Cont d.)

DESCRIPTION	PERCENT OF DEGREE AND EMPLOYMENT CATEGORY							
	M.D. & Ph.D.		M.D.		Ph.D./O.H.D.		Non-Doctoral	
	New-Hires	Other Faculty	New-Hires	Other Faculty	New-Hires	Other Faculty	New-Hires	Other Faculty
<u>Research Responsibility</u>								
Full Research	15	4	1	1	18	10	9	10
Part Research	74	82	54	64	70	80	28	29
No Research	11	14	44	34	12	10	63	60
(Total)	(100)	(100)	(99)	(99)	(100)	(100)	(100)	(99)
<u>Total Number of Professional Jobs</u>								
One (Current)	45	35	55	43	37	37	20	30
Two	30	30	30	30	31	30	34	29
Three	15	18	9	15	16	18	18	19
Four	6	9	3	7	8	9	11	12
Five	2	5	1	3	4	4	9	5
Six or Seven	2	4	1	2	3	2	8	5
(Total)	(100)	(101)	(99)	(100)	(99)	(100)	(100)	(100)
<u>Original Employment Source</u>								
<u>Professional Employment</u>								
U.S. Active Military Service	2	3	6	6	1	1	1	2
U.S. Government (Incl. P.H.S.)	7	6	4	6	4	6	3	5
U.S. State/Local Government	0	2	1	2	2	2	6	11
U.S. Hospital (Non-Federal)	2	1	3	2	3	1	16	7
Private Practice	0	3	7	8	*	*	*	1
Volunteer-U.S. Med. School	2	1	2	1	1	*	2	1
U.S. Med. School-Non-Faculty	2	*	*	*	1	1	9	4
Faculty-U.S. Non-Med. School	1	5	1	2	15	9	14	8
Foreign-Academic	18	6	2	1	3	2	1	*
Foreign-Non-Academic	1	1	1	*	1	*	0	*
Foundation/Research Institution	2	1	*	*	4	2	1	1
Private-Business Industry	0	*	*	*	3	1	3	3
Other Employment	1	6	1	3	1	1	7	18
(Total Employment)	(38)	(35)	(29)	(32)	(42)	(33)	(63)	(61)
<u>Professional Training</u>								
U.S. Medical School	6	5	7	3	10	6	5	2
Other U.S. Ed. Institution	2	4	1	1	22	15	24	13
NIH/NIMH Training Program	9	15	6	16	15	22	1	4
Other Training Program	7	5	10	5	9	6	5	4
Foreign Ed. Institution	7	2	2	1	2	1	*	*
Internship/Residency	32	30	44	40	1	*	*	*
(Total Training)	(63)	(61)	(70)	(66)	(59)	(50)	(35)	(23)
<u>Non-Med. School-Emp./Training Status Unknown¹</u>	0	5	*	2	0	16	0	14
(Total Employment Source)	(101)	(101)	(99)	(100)	(101)	(99)	(98)	(98)

¹ The apparent contrast between new-hires and other faculty with respect to recruitment from U.S. non-medical schools faculties and from non-medical educational training is an artifact of an early FRS coding system which included a "non-medical school" category without further specification of whether employment or training was indicated. The Ph.D./O.H.D. and non-doctoral degree groups each include about 15 percent of faculty in this unspecified category.

TABLE 45 (Cont'd.)

DESCRIPTION	PERCENT OF DEGREE AND EMPLOYMENT CATEGORY							
	M.O. & Ph.D.		M.D.		Ph.O./O.D.		Non-Doctoral	
	New-Hires	Other Faculty	New-Hires	Other Faculty	New-Hires	Other Faculty	New-Hires	Other Faculty
<u>Citizenship</u>								
U.S.	55	78	78	88	86	91	97	97
Canada	3	1	1	1	1	1	*	*
Foreign	43	21	21	11	13	8	~	3
(Total)	(101)	(100)	(100)	(100)	(100)	(100)	(99)	(100)
<u>Country of M.O. Training</u>								
U.S.	52	63	74	80	(Not Applicable)			
Canada	2	3	1	2				
Foreign	46	34	25	18				
(Total)	(130)	(100)	(100)	(100)				
(Percentages Are Based On Approximate Numbers of Full-Time Faculty:) ²	(189)	(1790)	(3819)	(18969)	(1388)	(9465)	(527)	(2378)

² Actual base varies for each of the variables, depending on the number of cases with complete data on each item.

Persons new to the medical school full-time faculty population in 1976-77 had a considerably narrower range of duties within the medical schools than did other faculty as evidenced by their somewhat smaller number of areas of responsibility.

Within the M.D. and the non-doctoral degree groups, new-hires and other faculty had about the same rates of involvement in teaching as an area of responsibility. Within the other two degree groups, however, new-hires had lower rates of involvement in teaching than did other faculty (M.D. & Ph.D.'s, new-hires 79 percent and other faculty 93 percent; Ph.D./O.H.D.'s, new-hires 78 percent and other faculty 86 percent).

A higher percentage of new-hires than of other full-time faculty had only research responsibilities within the medical schools, among M.D. & Ph.D. faculty (15 percent vs. 4 percent), and among Ph.D./O.H.D.'s (18 percent vs. 10 percent). Among M.D. faculty there was a lower rate of involvement in research for new-hires (55 percent) than among other faculty (65 percent).

Within the M.D. & Ph.D. and the M.D. degree groups, higher percentages of new-hires than of other full-time faculty were in their first professional job (M.D. & Ph.D.'s, 45 percent vs. 35 percent; M.D.'s, 55 percent vs. 33 percent). Newly-hired Ph.D./O.H.D.'s and other Ph.D./O.H.D.'s had similar numbers of professional jobs in their employment histories. Newly-hired non-doctoral faculty tended to have more previous professional jobs than did other non-doctoral faculty.

Some interesting data pertaining to trends in the medical school faculty population have to do with the sources of newly-hired faculty as compared with the sources from which other faculty were initially recruited. As compared with other full-time faculty, more newly-hired M.D. & Ph.D.'s entered the medical school faculty pool from foreign academic sources (18 percent vs. 6 percent). New-hires in all degree groups had considerably lower percentages of recruitment from NIH/NIMH training programs than did other full-time faculty; and new-hires in all degree groups had slightly higher percentages of recruitment from four of the other five

training sources listed.

Within the three doctoral degree groups, and particularly among M.D. & Ph.D. faculty, new-hires had higher percentages of citizenship in countries other than the U.S. and Canada than did other faculty (M.D. & Ph.D.'s, 43 percent vs. 21 percent; M.D.'s, 21 percent vs. 11 percent; Ph.D./O.H.D.'s, 13 percent vs. 8 percent).

New-hires also had much higher percentages of foreign-trained M.D.'s than did other full-time faculty (M.D. & Ph.D.'s, 46 percent vs. 34 percent; and M.D.-only faculty, 25 percent vs. 10 percent).

VIII. SUMMARY

This report describes the characteristics of the population of salaried faculty at U.S. medical schools at the midpoint of the 1976-77 academic year. Selected comparisons are made on faculty characteristics as of the midpoints of the 1976-77 and 1971-72 academic years. This summary contains highlights of the results that were detailed in the preceding chapters.

The source of the data for this report is the AAMC's Faculty Roster System, a data base containing over 73,000 records as of July 1977. About 45,000, or 61 percent of the records, are for faculty holding active, salaried appointments as of January 1977. The 1971-72 analyses are based on the approximately 38,000 records of faculty who held active, salaried faculty positions at that point in time.

Degree Type

Highest earned academic degree is used throughout the report as a major variable for defining groups of faculty for further description. Faculty holding both M.D. and Ph.D. degrees (5 percent in 1976-77), faculty holding an M.D. degree (62 percent), those with a Ph.D. or other Health Doctorate (26 percent), and those with no doctoral degree (7 percent) constitute the four groups analyzed. The percentages of faculty in the four degree groups were nearly identical for the 1976-77 and 1971-72 academic years.

Type of Appointment

Seventy-two percent of all 1976-77 salaried faculty held strict full-time (including strict full-time affiliated) appointments. M.D.'s held particularly high percentages of the geographic appointment as well as of the appointments in affiliated institutions. Eleven percent of salaried faculty held part-time appointments, most of whom (82 percent) were M.D.'s.

Academic Rank

Twenty-three percent of all salaried 1976-77 faculty were professors, 20 percent were associate professors, 30 percent were assistant professors; the remaining 26

percent of salaried faculty held ranks of instructor, lecturer-and-other, or clinical ("modified") ranks. Higher percentages of faculty in the lower ranks held appointments in affiliated institutions. The great majority of faculty in clinical ranks held part-time appointment.

Departments

The distributions of salaried faculty across the major academic departments remained essentially unchanged between 1971-72 and 1976-77. Seventy-one percent of 1976-77 faculty were in Clinical Science departments, with departments of Medicine far exceeding all others in size (18 percent of all faculty).

Basic Science departments accounted for 23 percent of all salaried faculty, and included higher percentages of professor and associate professor ranks than did Clinical Science departments.

About two-thirds of the part-time faculty in three departments (Dermatology, Ophthalmology, and Orthopedics) held clinical ranks.

Since full-time faculty are the major resource of U.S. medical schools and constitute 90 percent of salaried faculty, the remainder of the report focused on salaried faculty holding full-time appointments in U.S. medical schools.

Specialties within Departments

Most departments were homogeneous, having most of their faculty in specialties or disciplines reflecting the name of the departments. One Basic Science department (Microbiology) and several Clinical Science departments (Family Practice, Otolaryngology, Physical Medicine and Rehabilitation, Psychiatry, and Public Health and Preventive Medicine) contained high percentages of diverse disciplines or specialties.

Primary Specialties

The percentage distributions of full-time faculty over 31 primary specialties or disciplines were nearly identical for the 1976-77 and 1971-72 academic years. Although the percentage of full-time faculty who

indicated Family Practice as their primary specialty increased from 0.3 percent to 1.0 percent over the five-year period, the number of Family Practice specialists increased almost five-fold.

Basic Science specialties were indicated by 27 percent of 1976-77 full-time faculty, including 66 percent of the Ph.D./O.H.D. degree groups. Sixty-one percent of full-time faculty (including 90 percent of M.D.'s) were in Clinical Science specialties. Internal Medicine was the largest of all specialty areas (14 percent of all faculty). Fifty-three percent of 1976-77 non-doctoral faculty were in Behavioral and Social Science or Allied Health disciplines.

Between 1971-72 and 1976-77, Ph.D./O.H.D. faculty accounted for increasing percentages of the Physical Science, Behavioral and Social Science, Allied Health, Administration, and "Other" disciplines, while the percentages of non-doctoral faculty in these areas decreased.

Areas of Responsibility

The modal pattern of responsibilities for M.D. faculty was teaching, research, and patient care; for Ph.D./O.H.D.'s it was teaching and research.

Fifty percent of full-time 1976-77 faculty reported being involved in three or more major areas of responsibility (teaching, research, patient care, administration, or "other" areas). The number of areas of responsibility increased with academic rank. Faculty in Clinical Science departments and those with geographic full-time appointments tended to be involved in more areas of responsibility.

Eighty-nine percent of all full-time 1976-77 faculty were involved in teaching responsibilities; 71 percent were involved in research (including 90 percent of Ph.D./O.H.D.'s and 63 percent of M.D.'s).

Employment History

Forty-one percent of the full-time salaried faculty were in their first professional jobs in 1976-77 (a slight decrease from 46 percent in 1971-72). Fewer M.D.'s than other faculty had held previous professional employ-

ment; non-doctoral faculty had the highest rates of prior professional experience.

Average length of employment in 1976-77 full-time faculty appointments was 8.0 years (a considerable increase from 6.8 years in 1971-72). The length of current appointment was related to rank, ranging from an average of 13.2 years for professors, to 4.0 years for lecturers.

The majority of 1976-77 full-time faculty joined medical school faculties immediately subsequent to professional training, rather than from previous professional employment. An especially high percentage of M.D.'s were recruited into faculty status directly from professional training.

Professional employment just prior to the 1976-77 faculty positions included other medical school faculty appointments, primarily, as well as large percentages of other academic and U.S. Government employment.

Between 6 and 15 percent of full-time 1976-77 M.D. faculty in Clinical Science specialties had private practice experience at some time in their professional employment histories, except in two specialties: Physical Medicine and Rehabilitation, 22 percent; and Family Practice, 60 percent.

Training and Credentials

Eighty-four percent of full-time M.D. faculty in 1976-77 and in 1971-72 had completed an internship. Eighty-seven percent (84 in 1971-72) had completed a residency program. More residencies were completed in Internal Medicine than in any other specialty area (32 percent in either year). Family Practice and Nuclear Medicine showed dramatic numerical increases in residencies over a five-year period, although the percentages of residencies in these areas remained under 0.5 percent of the total.

Sixty-six percent of M.D. faculty in each year held at least one board certification, including 52 percent of M.D.'s in Basic Science departments and 67 percent of M.D.'s in Clinical Science departments. Seventy-five percent or more of M.D. faculty in departments of Dermatology, Ophthalmology, Pathology, Pediatrics, Radiology, and Surgery were board certified. Rates of board certified M.D.'s were directly correlated with rank.

Internal Medicine was the largest single area of board certifications (24 percent of all certifications awarded to full-time M.D. faculty), followed by Pediatrics (12 percent) and Surgery (8 percent). As with residency specialties, the numbers of board certifications in Family Practice and in Nuclear Medicine increased dramatically over a five-year period, although the percentages of certifications in these areas remained extremely small.

Sixty-two percent of the 1976-77 faculty with Ph.D.'s had received pre-doctoral awards, with NIH being the largest single source of such support (one-third of all pre-doctoral awards). In the 1960's, NIH provided over 40 percent of the awards to Ph.D. graduate students now full-time faculty of U.S. medical schools; NIH accounted for 34 percent of pre-doctoral awards that began between 1970 and 1976. Pre-doctoral awards from academic institutions (20 percent) supplemented awards from all U.S. Government sources (61 percent). Most of the pre-doctoral awards (65 percent) were granted in the Basic Sciences, with Biochemistry being the discipline receiving the most support for all time periods combined. The awards in Biochemistry, however, have dropped off in recent years, with a concomitant increase in the percentage of awards in Behavioral and Social Science disciplines.

Post-doctoral awards had been received by 54 percent of full-time doctoral faculty, with NIH again being the largest single source of support (about half of all post-doctoral awards in recent years). All federal government sources, combined, accounted for increasing percentages of awards through the 1960's, while the percentage of awards from private foundations, the next largest source, has decreased over time. Over half (56 percent) of the post-doctoral awards were in Clinical Science areas, with Internal Medicine receiving more than any other discipline (18 percent of all post-doctoral awards).

Characteristics of Faculty by Sex

Female faculty comprised about 15 percent of the 1976-77 full-time faculty force. While there were no differences by sex in the type of employment held, fewer women than men had an M.D. degree (43 percent vs. 68 percent), and more women than men held no doctorate (28

percent of women vs. 4 percent of men).

Within each degree type, the relative percentage of professors is at least twice as high for male faculty as for females, whereas the relative percentage of females in the instructor and lecturer-and-other ranks is twice as high as for males.

Among full-time M.D. faculty, women were slightly younger than men, and tended to be from "other" minority origin more than did male M.D. faculty. Some differences in primary specialty were noted between the two sexes, within the Ph.D./O.H.D. and non-doctoral degree groups.

Male doctoral faculty tended to have a wider range of areas of responsibility than did female faculty, and about the same percentage of involvement in teaching activities as did women. Female M.D.'s had a considerably lower rate of involvement in research responsibilities than did male M.D.'s (53 percent vs. 67 percent). Women with Ph.D.'s or O.H.D.'s tended to be involved only in research activities more than did men, and males had slightly longer duration of employment in their 1976-77 appointments (except for the non-doctoral groups). Male M.D.'s had more prior professional employment than women did.

Characteristics of Faculty by Racial/Ethnic Identification

Most of the 95 percent of full-time faculty in U.S. medical schools for whom the ethnic/racial information is available were Caucasian (88 percent). Three percent were in one of the under-represented categories (Black American, American Indian, Mexican American, or Puerto Rican). The remainder, about 10 percent, were other Hispanic, Asian, or "other" minorities.

Fewer than two percent of the full-time faculty with doctoral degrees were of under-represented minority origin, with other minorities constituting between 9 and 16 percent of each doctoral degree group (and 4 percent of non-doctoral faculty).

Although there were no large differences between minorities and Caucasians in age or in number of years in present appointment, many other differences were

found:

Of full-time doctoral faculty who were U.S. citizens, lower percentages of under-represented minorities held ranks of professor than did Caucasian faculty, and relatively higher percentages of minorities with doctorates were employed in instructor or lecturer-and-other ranks. A relatively high percentage of other minority non-doctoral faculty held the lecturer-and-other ranks.

Minority faculty with Ph.D.'s or O.H.D.'s had a greater number of previous professional jobs than did Caucasians, but the under-represented minorities with M.D.'s tended to be in their first professional jobs, about half coming directly from internship or residency programs. Non-doctoral minority faculty had especially high rates of recruitment from other educational institutions and from non-faculty employment at medical schools.

Under-represented minority faculty had higher percentages of women than did Caucasians or other minorities (among non-doctoral faculty), higher percentages of Behavioral and Social Science disciplines (among non-doctoral faculty), lower rates of involvement in research responsibilities, and less previous professional experience (M.D.'s only) than did Caucasian or "other minority" faculty.

Country of M.D. Training

Twenty-one percent of full-time M.D. faculty in 1976-77 had completed their medical education in countries other than the U.S. or Canada. Foreign medical degrees constituted 25 percent of all M.D. degrees granted in the 1950's or 1960's, but only 13 percent of the M.D. degrees granted to full-time faculty in the 1970-76 period.

Foreign-trained M.D.'s were slightly younger than U.S. or Canadian-trained M.D.'s. They also had higher percentages of women and of "other minorities" (not under-represented minorities). Higher percentages of foreign-trained M.D.'s than of other M.D.'s were in Basic Science specialties and in Anesthesiology, but lower percentages of foreign-trained M.D.'s were in Internal Medicine or Surgery specialties.

Foreign-trained M.D.'s had a somewhat narrower range of areas of responsibility, similar rates of involvement in teaching and in research, as compared with Canadian or U.S.-trained M.D.'s, and much lower rates of employment at the rank of professor.

In terms of professional employment histories, foreign-trained M.D.'s had somewhat shorter duration of employment in their 1976-77 faculty positions, a somewhat higher number of previous professional jobs, and a relatively high rate of recruitment from foreign academic sources.

Thirty-six percent of foreign-trained M.D.'s were U.S. citizens.

Newly-Hired Faculty

Faculty who began salaried faculty employment at U.S. medical schools in the two-year period prior to January 1977 were studied as a special group; they comprised 15 percent of the total 1976-77 faculty force. Very few of the new faculty (6 percent) held 1976-77 appointments at the ranks of professor or associate professor (traditionally tenure-holding ranks) as compared with faculty who had been in the U.S. medical school manpower pool for longer than two years (55 percent in the two highest ranks). Newly-hired faculty were considerably younger than other faculty. They had higher percentages of women, of minorities other than under-represented minorities, and of Clinical Science specialists than did other faculty.

Persons new to the full-time medical school faculty population had a considerably narrower range of responsibilities than did other faculty, and they had somewhat different rates of involvement in teaching and in research (depending on the degree group).

Newly-hired M.D. faculty had more professional experience prior to their 1976-77 faculty appointments than did other faculty. New-hires in all degree groups had lower rates of initial recruitment from NIH or NIMH training programs.

Much higher percentages of new-hires than of other doctoral faculty were citizens of countries other than the U.S. or Canada, and relatively more newly-hired M.D.'s than other M.D.'s were foreign-trained.

REFERENCES

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- Association of American Medical Colleges, Medical School Admission Requirements, 1978-79. (26th Edition), 1977 (b).
- Griffith, Pamela J. and McRae, Douglas J., Description of Salaried Medical School Faculty 1969-70 and 1974-75. Washington, D.C.: Association of American Medical Colleges, April, 1977. 118 pages.
- Journal of the American Medical Association 72nd Annual Report: Medical Education in the United States, 1971-72. Volume 222, No. 8, November, 1972.
- Journal of the American Medical Association 77th Annual Report: Medical Education in the United States, 1976-77. December, 1977 (in press).
- Liaison Committee on Medical Education, Medical Schools of the U. S. A. Status of Accreditation. July, 1977.

APPENDIX A

DATE OF FORM
1. COMPLETION

Mo. Day Yr.

SALARIED MEDICAL FACULTY QUESTIONNAIRE (Faculty Profile - New Accession Form)

AAMC Form FP-1
Rev 9/73

MEDICAL SCHOOL
OF CURRENT EMPLOYMENT

NAME

(Surname)

(First)

(Middle Initial or Name)

2. SEX ☐ Male ☐ Female

3. SOC. SEC. No.

4. BIRTHDATE

Mo. Day Yr.

5. BIRTHPLACE

(Country)

6. CURRENT CITIZENSHIP

(Country)

7. FORMER CITIZENSHIP (If U.S. Naturalized)

(If U.S. Citizen by Birth, Enter "NA" - Not Applicable)

8. DATE OF U.S. NATURALIZATION

Mo. Day Yr.

9. VISA STATUS: (If Currently an Alien)

☐ TEMPORARY

☐ PERMANENT

75. OPTIONAL INFORMATION

(For school use only)

75. ETHNIC GROUP

Because of interest and concern regarding employment opportunities for ethnic minorities, you are requested to indicate below in which ethnic group you consider yourself. (Check One)

☐ 1-Black American

☐ 6-Oriental (Chinese or Japanese)

☐ 2-American Indian

☐ 7-Other Asian

☐ 3-Mexican American

☐ 8-Caucasian

☐ 4-Puerto Rican

☐ 9-Other

☐ 5-Other Spanish Surnamed

☐ 0-Do Not Wish To Respond

CURRENT APPOINTMENT DATA:

10. MEDICAL SCHOOL DEPARTMENT

(Or Administrative Unit Equal to or Above Dept. Level)

11. ACADEMIC RANK

12. ADMINISTRATIVE TITLE

(If No Title, Enter "NONE")

13. JOINT DEPARTMENT

(If No Joint Dept., Enter "NONE")

14. JOINT DEPT. ACADEMIC RANK

15. JOINT DEPT. ADMINISTRATIVE TITLE

(If No Title, Enter "NONE")

CHECK ONE OF THE BOXES BELOW, INDICATING THE JOINT DEPARTMENT'S "LOCATION"

☐ MS - Medical school

☐ OD - Other division of the university

☐ HS - Other health profession school within the university

☐ OI - Other institution, e.g., another institution of higher education or an affiliated hospital

16. SPECIALTY OR DISCIPLINE: Enter below the specialty(s) or discipline(s) from the Specialty/Discipline List which best describe(s) your current activities.

16. _____

18A. _____

17. MAJOR AREAS OF RESPONSIBILITY: Should indicate major functional emphasis of activity in any combination of Teaching, Research, Patient Care, Administration, or Other. Check all that apply. If a primary responsibility exists, enter the letter "P" in appropriate box. Primary responsibility should reflect predominant area of activity in which major effort is directed over and above other areas of major activity, when appropriate

☐ TEACHING

☐ RESEARCH

☐ PATIENT CARE

☐ ADMINISTRATION

☐ OTHER

18. NATURE OF EMPLOYMENT. (Check one)

1- ☐ SFT Strict full time in medical school

2- ☐ SFTA Strict full-time in affiliated institution*

3- ☐ GFT Geographic full-time in medical school

4- ☐ GFTA Geographic full-time in affiliated institution*

6- ☐ PTS Part-time salaried in medical school

7- ☐ PTSA Part-time salaried in affiliated institution*

6- ☐ NS Non-salaried

* (Usually teaching hospitals)

18A. If Nature of Employment is SFTA, GFTA, or PTSA (See Item 18)

enter name of affiliated institution _____

18A. Beginning Month and Year of current employment as a salaried faculty member at this school _____

NAME (Surname) (First) (Middle Initial or Name)

DEPARTMENT

26. From which of the following sources did you ORIGINALLY enter
U.S. Medical School Salaried Academic Employment? (Check only one)

PROFESSIONAL TRAINING:

- 40 ☐ U.S. Medical School
42 ☐ Other U.S. Educational Institution
44 ☐ Internship or Residency
46 ☐ NIH Training Program
47 ☐ NIMH Training Program
48 ☐ Other Training Program
60 ☐ Foreign Educational Institution

PROFESSIONAL EMPLOYMENT:

- 10 ☐ Volunteer Faculty - This Medical School
11 ☐ Volunteer Faculty - Other U.S. Medical School
12 ☐ Other U.S. Educational Institution
14 ☐ Foreign - Academic
16 ☐ Foreign - Non-Academic
18 ☐ Private Practice of Medicine
19 ☐ U.S. Active Military Service

- 20 ☐ U.S. Govt. - DOD & Military Hosps.
22 ☐ U.S. Govt. - PHS (Include PHS Hosps. NIH & NIMH)
24 ☐ U.S. Govt. - Veterans Admin. (Include VA Hosps.)
26 ☐ U.S. Govt. - Other
28 ☐ U.S. Hospital (Non-Federal)
30 ☐ Foundation (or Research Institute)
34 ☐ State or Local Govt. (U.S.)
36 ☐ Private Business or Industry
98 ☐ Other (Specify) _____

PAST PROFESSIONAL EMPLOYMENT HISTORY:

	YEARS		TYPE OF EMPLOYMENT (If Academic, Enter School Name and Location) (If Non-Academic, Enter From Above Professional Employment List)	MAJOR AREAS OF RESPONSIBILITY (d)					COMPLETE COLUMNS (e)-(h) FOR MEDICAL SCHOOL EMPLOYMENT ONLY			
	From	To		TEACHING	RESEARCH	PATIENT CARE	ADMIN.	OTHER	DEPARTMENT (e)	NATURE OF EMPLOYMENT (f)	ACADEMIC RANK (g)	ADMINISTRATIVE TITLE (h)
	(a)	(b)	(c)									
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												

26A. YEAR OF YOUR FIRST U.S. MEDICAL SCHOOL SALARIED FACULTY APPOINTMENT _____

27. HAVE YOU EVER SERVED AS A VOLUNTEER NON-SALARIED FACULTY MEMBER AT A U.S. MEDICAL SCHOOL? YES ☐ NO ☐ 28. LATEST YEAR _____

EARNED DEGREES:

LIST ALL EARNED DEGREES AT THE BACHELOR'S LEVEL AND ABOVE. (Two degrees at the same level may not be entered on the same line. In such cases, enter the more recent.)

29. IF NO EARNED DEGREES, PLEASE CHECK ☐

		SPECIFY DEGREE	FIELD OF STUDY (Select from Specialty/Discipline List)	INSTITUTION CONFERRING DEGREE	STATE (If U.S.) COUNTRY (If Foreign)	YEAR COMPLETED
		(a)	(b)	(c)		(d)
M.D., D.O., OR FOREIGN EQUIVALENT	30		MEDICINE			
PH.D. OR EQUIVALENT	31					
OTHER HEALTH RELATED DOCTORATE	32					
MASTERS	33					
BACHELORS	34					

ITEMS 36-54 TO BE COMPLETED BY M.D.'S, D.O.'S OR FOREIGN EQUIVALENT ONLY

INTERNSHIPS IN THE U.S.A.		HOSPITAL (a)	CITY	STATE	YEAR COMPLETED (b)
36 NONE <input type="checkbox"/>	37				
	38				

RESIDENCIES IN THE U.S.A.		HOSPITAL (a)	CITY	STATE	RESIDENCY PROGRAM (b)	YEAR COMPLETED (c)
39 NONE <input type="checkbox"/>	40					
	41					
	42					
	43					

U.S. MEDICAL SPECIALTY BOARD CERTIFICATION: 45 NONE ☐

46 FIRST CERTIFICATION _____ 47 YEAR _____ 48 SECOND CERTIFICATION _____ 49 YEAR _____

FOREIGN MEDICAL SPECIALTY CERTIFICATION: 52 NONE ☐ 53 SPECIALTY _____ 54 YEAR _____

PRE- AND POSTDOCTORAL SUPPORT:

Select responses for Purpose and Source of Award from the lists below)

PURPOSE

- | | |
|-----------------------------------|-----------------------------------|
| 01 Complete Degree * | 06 Training & Research |
| 02 Complete Additional Doctorate* | 07 Teaching & Research |
| 03 Specialty Training | 09 Training & Teaching |
| 04 Training Only | 11 Training, Teaching, & Research |
| 05 Teaching Only | |
| 06 Research Only | |

*Use for Predoctoral only.

SOURCE OF AWARD

Abbreviations

- | | |
|---------------|-----------------------------------------------------|
| 11 NIH | National Institutes of Health |
| 12 PHS | Other Public Health Service |
| 15 CPEHS | Consumer Protection & Environmental Health Service |
| 14 HSMHA | Health Services & Mental Health Admin. (incl. NIMH) |
| 16 SRS | Social Rehabilitation Service |
| 17 SSA | Social Security Admin. |
| 18 OE | Office of Education |
| 13 DHEW-Other | All other Dept. Health, Education & Welfare |

Abbreviations

- | | |
|--------------|----------------------------------|
| 24 NSF | National Science Foundation |
| 23 VA | Veterans Administration |
| 25 FED-Other | Federal-Other |
| 46 ACAD | Academic |
| 45 ACAD-F | Academic Foreign |
| 35 FOR | Foreign |
| 38 FDN | Foundation, society, association |
| 37 IND | Industry, business |
| 90 | All Other, please specify |

PREDOCTORAL SUPPORT (LIST SUPPORT FOR SIX MONTHS DURATION OR LONGER)

55 NONE <input type="checkbox"/>	INSTITUTION OF TRAINING (a)	DISCIPLINE (Select from Specialty/Discipline List) (b)	PURPOSE (c)	SOURCE OF AWARD (d)	Years	
					From (e)	To (f)

POSTDOCTORAL SUPPORT (LIST SUPPORT FOR SIX MONTHS DURATION OR LONGER)

59 NONE <input type="checkbox"/>	INSTITUTION OF TRAINING (a)	DISCIPLINE (Select from Specialty/Discipline List) (b)	PURPOSE (c)	SOURCE OF AWARD (d)	Years	
					From (e)	To (f)

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CURRENT PARTICIPATION IN NIH TRAINING GRANTS (exclude NIMH): (Use one line per training grant)

64 NONE <input type="checkbox"/>		DISCIPLINE (Select From Specialty/Discipline List) (a)	DIRECTOR (b)	STAFF (c)	Salary Support	
					Yes (d)	No (e)
	65					
	66					
	67					

CURRENT PARTICIPATION IN OTHER FEDERAL PROGRAMS: (Including NIH)

(Select responses for Federal Agency and Name of Sponsoring Agency's Program from the lists below.)

68 NONE <input type="checkbox"/>		FEDERAL AGENCY (a)	NATURE OF PROGRAM ACTIVITY (b)				NAME OF SPONSORING AGENCY'S PROGRAM (c)	Salary Support	
			Teaching	Research	Patient Care	Other		Yes (d)	No (e)
	69								
	70								
	71								
	72								
	73								

FEDERAL AGENCY (From Which Funds Are Received)

Abbreviations

- | | |
|----------------|---------------------------------------------------------------------|
| 02 NIH | National Institutes of Health |
| 04 HSMHA-RMP | Health Services & Mental Health Admin.-
Regional Medical Program |
| 06 HSMHA-Other | Health Services & Mental Health Admin.-Other (incl. NIMH) |
| 07 CPEHS | Consumer Protection & Environmental Health
Service |
| 08 SRS | Social Rehabilitation Service |
| 10 SSA | Social Security Admin. |
| 11 OE | Office of Education |
| 12 DHEW-Other | All other-Dept. Health, Education & Welfare |
| 14 OEO | Office of Economic Opportunity |
| 16 VA | Veterans Administration |
| 18 NSF | National Science Foundation |
| 20 AEC | Atomic Energy Commission |
| 22 NASA | National Aeronautics & Space Admin. |
| 24 DOD | Dept. of Defense |
| 26 Fed-Other | Federal - Other (Specify) |

NAME OF SPONSORING AGENCY'S PROGRAM

(Should designate sponsoring agency's program in which faculty member participates)

Abbreviations

- | | |
|---------------|--------------------------------------------|
| 01 BIG | NIH basic improvement grant |
| 03 SIG | NIH special improvement grant |
| 05 GRSG | NIH general research support grant |
| 07 RPG | NIH research project grant or contract |
| 09 PAP | Physician augmentation program |
| 11 RMP | Regional Medical Program |
| 13 MIC | Maternal & infant care center |
| 15 CYC | Children & youth center |
| 17 CHC | Community health center |
| 19 Comp HC | Comprehensive health center |
| 23 RCDA | Research career development award |
| 25 HSMHA | HSMHA neighborhood health center |
| 27 Other-DHEW | Other DHEW research grants or contracts |
| 29 Other-Fed. | Other Federal research grants or contracts |

APPENDIX B

DESCRIPTION OF VARIABLES DERIVED FROM
FACULTY ROSTER SYSTEM MASTER FILE,
FOR TABULATIONS IN REPORT

Variable Number	Variable Label	Description of Variable	Values of Variable and Their Meaning	Derivation from Accession Form	Special Notes on Processing
1	ID	Identification number of record, scrambled		Item 3, copied.	(In 1971-72 file, also)
2	SEX	Sex of faculty member	0 = unknown; 1= male; 2= female	Item 2, copied.	
3	ETHNIC	Ethnic identification	1 = Caucasian 2 = Black American 3 = American Indian 4 = Mexican American 5 = Puerto Rican 6 = Other Hispanic 7 = Chinese/Japanese 8 = Other Asian 9 = Other 0 = No information	Item 15, recoded from value 8 " 1 " 2 " 3 " 4 " 5 " 6 " 7 " 9 " 0	(In 1971-72 file, also)
4	ETHGRP	Major ethnic group	1 = Caucasian 2 = AAMC's under-rep. minorities 3 = All other minorities 0 = No information	Item 75, recoded from value 8 " values 1 - 4 " values, 5, 6, 7, 9 " value 0	
5	AGE	Age as of January 1977 or January 1972	0 = No information 22 through 93 = age in years	Computed from Item 4 (birthdate)	
6	AGEGRP	Intervals of age	1 = 20-29 4 = 40-44 7 = 55-59 2 = 30-34 5 = 45-49 8 = 60-64 3 = 35-39 6 = 50-54 9 = 65-69 0 = No information	Computed from AGE variable	
7	CTZN	Citizenship	0 = No information 1 = U.S. 2 = Canada 3 = Foreign	Item 5, 6, 7--all values except below " values 101 & 103 " value 107 " values 105 & 109-881 Use item 6 (current citizenship) unless naturalized in 1977 in which case use item 7 (former citizenship). If item 6 is blank but item 5 (birthplace) is U.S., use item 5 for citizenship.	

APPENDIX B (Cont'd)

Variable Number	Variable Label	Description of Variable	Values of Variable and Their Meaning	Derivation from Accession Form	Special Notes on Processing
8	YRIFAC	Year of first salaried medical school faculty appointment.	0 = No information 10 - 77 = 1910 to 1977	Item 26A, copied.	
9	SOURCE	Original employment source	0 = No information 1 = U.S. Active military service 2 = U.S. Government 3 = U.S. state/local government 4 = U.S. hospital (non-federal) 5 = private practice 6 = Volunteer-same med. school 7 = Volunteer-other U.S. med school 8 = U.S. med school non-faculty emp. 9 = faculty-U.S. non-med school 10 = foreign academic 11 = foreign non-academic 12 = foundation or research instit. 13 = private business or industry 14 = Other employment 15 = training-U.S. med school 16 = training-Other U.S. Ed instit. 17 = NIH/NIMH training program 18 = Other training program 19 = training-foreign Ed. instit. 20 = internship or residency 21 = non-med. schools, training or employment status unknown.	Item 26, recoded from value 0 " value 19 " 20-26 " 34 " 28 " 18 " 10 " 11 " 17 " 12 & 35 " 14 " 16 " 30 " 36 " 98 " 40 " 42 " 46, 47 " 48 " 50 " 44 " 13	
10	SPCLTY	First basic specialty (= primary specialty or discipline)	0 = No information 1 = Anatomy 2 = Biochemistry 3 = Biology, all 4 = Biophysics 5 = Genetics 6 = Immunology 7 = Micro-parasitology 8 = Pathology-Basic 9 = Pharmacology 10 = Physiology 11 = All other Basic Sciences 12 = Anesthesiology 13 = Dermatology 14 = Endocrinology 15 = Family Practice 16 = Internal Medicine 17 = General Medicine 18 = Nuclear Medicine 19 = Neurology 20 = Ob-Gyn 21 = Pathology-Clinical	Item 16 " values 10200-10299 " 10600-10699 " 11000, 11100, 19000, 19999 " 11400 " 13400-13499 " 13800-13899 " 14200-14299 " 15000-15099 " 15400-15499 & 20600 " 15800-15899 " 18000-12900, 14600, 16200-18050 " 20200 " 21000 " 21200 " 21300 " 21800-21899 " 22200 " 22600-22699 " 23000 " 23400-23415 " 24200-24699	Reverse new codes 24 & 25, for alphabetical order in tables of report. (In 1971-72 file, also)

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APPENDIX B (Cont'd)

Variable Number	Variable Label	Description of Variable	Values of Variable and Their Meaning	Derivation from Accession Form	Special Notes on Processing
10			22 = Pediatrics 23 = Physical Medicine & Rehabil. 24 = Public Health & Prev. Medicine 25 = Psychiatry 26 = Radiology 27 = Surgery 28 = All other Clinical Sciences 29 = Physical Sciences & Engineering 30 = Behavioral & Social Sciences 31 = Allied Health 32 = Administration 33 = Other	" 24600-24699 " 25000-25009 " 25400-25427 " 25800-25899 " 26200-26299 " 26600-26699 " 23800,21100,21400,27000, 29000,29999 " 31000-39999 " 41000-49999 " 51000-59999 " 61000-69999 " 91000-97000	
11	SPCLGP	Grouped primary specialty	0 = No information 1 = Basic Sciences 2 = Clinical Sciences 3 = Physical Sciences & Engineering 4 = Behavioral & Social Sciences 5 = Allied Health 6 = Administration 7 = Other	Recoded from SPCLTY variable value 0 " values 1-11 " values 12-28 " value 29 " value 30 " value 31 " value 32 " value 33	(In 1971-72 file, also)
12	YRSCUR	Number of years in current appointment	0 - 58 = number of years 99 = No information	Computed from Item 20A of line 19 (year current employment began).	(In 1971-72 file, also)
13	YRSGRP	Six intervals of number of years in current appointment	0 = No information 1 = 0-5 years 2 = 6-10 years 3 = 11-15 years 4 = 16-20 years 5 = 21-25 years 6 = 26 or more years	Computed from YRSCUR variable	(In 1971-72 file, also)
14	SCH	U.S. medical School	1 - 116 as follows: 1 Alabama 2 Arizona 3 Cal San F. an 4 Stanford 5 UCLA 6 Cal San Diego 7 Colorado 8 Connecticut 9 Georgetown 10 Miami 11 S. Florida 12 Georgia 13 Hawaii 14 U Chicago 15 Illinois 16 Alabama So 17 Arkansas 18 South Cal 19 Longa Linda 20 Cal Irvine 21 Cal Davis 22 Yale 23 Geo Washington 24 Howard 25 Florida 26 Florida St. 27 Emory 28 Rush 29 Northwestern 30 Chicago Med.	From Item 20C of line 19 (employment location code, of current employment)	

APPENDIX B (Cont'd).

Variable Number	Variable Label	Description of Variable	Values of Variables and Their Meaning	Derivation from Accession Form	Special Notes on Processing
14	SCH ₉ cont.	U.S. Medical School	31 Loyola 33 Indiana 35 Kansas 37 Kentucky 39 La. N Orleans 41 Maryland 43 Harvard 45 Tufts 47 U. Michigan 49 Michigan St. 51 Minn. Duluth 53 Mississippi 55 Mo. Columbia 57 Mo. Kan City 59 Creighton 61 Dartmouth 63 Rutgers 65 Columbia 67 Suny Buffalo 69 New York Med 71 N.Y. Univ. 73 Rochester 75 Mt. Sinai 77 N. Carolina 79 Duke 81 North Dakota 83 Ohio State 85 Ohio Toledo 87 Oregon 89 Jefferson 91 Hahnemann 93 Temple 95 Puerto Rico 97 S. Carolina 99 Vanderbilt 101 Meharry 103 Baylor 105 TX San Ant. 107 Texas Tech 109 Vermont 111 MC Virginia 113 Wash State 115 Wisconsin 32 S. Illinois 34 Iowa 36 Louisville 38 Tulane 40 LA Shreveport 42 Johns Hopkins 44 Boston 46 Massachusetts 48 Wayne State 50 Minnesota 52 Mayo 54 Wash St. Louis 56 St. Louis 58 Nebraska 60 Nevada 62 New Jersey 64 New Mexico 66 Albany 68 Suny Downstate 70 Suny Syracuse 72 Cornell 74 Einstein 76 Stony Brook 78 Bowman Gray 80 E. Carolina 82 Case Western 84 Cincinnati 86 Oklahoma 88 U. Penn 90 M.C. Penn 92 Pittsburgh 94 Penn State 96 Brown 98 S. Dakota 100 Tennessee 102 Galveston 104 Tex. Southwest 106 Tex. Houston 108 Utah 110 U. Virginia 112 E. Virginia 114 W. Virginia 116 M.C. Wisconsin		
15	T	Areas of responsibility			
16	R	teaching	0 = not an area; 1 = area of respon.		Item 20D of line 19 (areas of
17	P	research	"		responsibility in current
18	A	patient care	"		employment). Value "2"
19	O	administration	"		(primary responsibility)
		Other	"		is recoded with "1".

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APPENDIX B (Cont'd)

Variable Number	Variable Label	Description of Variable	Values of Variables and Their Meaning	Derivation from Accession Form	Special Notes on Processing
20	AORNUM	Number of areas of responsibility	0 = No information 1-5 = Number of areas of responsibility	Code 0 if T,R,P,A,0 = "0." Otherwise, sum 1's in variables T,R,P,A,0.	
21	AORCOM	Specific area or combination of areas of responsibility	0 = No information 1 = T 2 = R 3 = P 4 = A 5 = 0 6 = T + R 7 = T + P 8 = T + A 9 = other combinations of 2 areas 10 = T + R + P 11 = T + R + A 12 = T + P + A 13 = other combinations of 3 areas 14 = T + R + P + A 15 = other combinations of 4 areas 16 = all 5 areas (T+R+P+A+0)	Code 0 if T,R,P,A,0 = "0." All other values are computed from combinations of 1's in variables T,R,P,A, and 0.	
22	TCHTWO	Teaching as an area of responsibility	0 = No information 1 = teaching as full (only) area 2 = teaching as one of multiple areas 3 = teaching not an area of respon.	From variable AORCOM	
23	RCHTWO	research as an area of responsibility	0 = No information 1 = research as full (only) area 2 = research as one of multiple areas 3 = research not an area of respon.	From variable AORCOM	
24	DEPT	Primary department	1 = Anatomy 2 = Biochemistry 3 = Biometry 4 = Biophysics 5 = Genetics 6 = Microbiology 7 = Molecular biology 8 = Pathology 9 = Pharmacology 10 = Physiology 11 = Anesthesiology 12 = Dermatology 13 = Family Practice 14 = Medicine 15 = Neurology 16 = Ob-Gyn 17 = Ophthalmology 18 = Orthopedics 19 = Otolaryngology 20 = Pediatrics	Item 20E of line 19 (current employment information) primary department codes: 01000-01999 02000-02999 03000-03999 04000-04999 05000-05999 06000-06999 07000-07999 08000-08999 09000-09999 10000-10999 11000-11999 12000-12999 13000-13999 14000-14999 15000-15999 16000-16999 17000-17999 18000-18999 19000-19999	Recode new values 3, 4, and 5 into "7"; the combination of departments of Biometry, Biophysics, Genetics, and Molecular Biology constitutes the "Other Basic Sciences" category of the tables. (in 1971-72 file, also).

APPENDIX B (Cont'd)

Variable Number	Variable Label	Description of Variable	Values of Variable and Their Meaning	Derivation from Accession Form	Special Notes on Processing
24 cont.			21 = Physical Medicine & Rehabil. 22 = Psychiatry 23 = Public Health & Prev. Medicine 24 = Radiology (inc. Nuclear Med) 25 = Surgery 26 = Other 0 = No information	20000-20999 21000-21999 22000-22999 23000-23999, 28000-28999 24000-24999 26000-27999 & 29000-98999 0 & 99000-99999	
25	EMP9	Nature of Employment	0 = Full-time (unknown which of 4 categories) 1 = SFT 2 = SFTA 3 = GFT 4 = GFTA 5 = PT 6 = PTA 7 = Part-time (unknown whether PT or PTA) 9 = No information	Item 20F of line 19, Value 0 " 1 " 2 " 3 " 4 " 8 " 7 " 5 " 9	
26	EMP3	Three groups of "type of employment" sub-categories	1 = strict full-time 2 = geographic full-time 3 = part-time salaried 0 = other or unknown	Item 20F of line 19, values 1 & 2 " 3 & 4 " 5, 7, 8 " 0 & 9	
27	EMP9P	Two categories of "type of employment"	1 = full-time 2 = part-time 0 = other or unknown	Variable EMP9, codes 0-4 " 5-7 " 9	(In 1971-72 file, also).
28	RANK	Primary department academic rank	0 - 99, indicating academic ranks: <u>FULL PROFESSOR</u> 02 Professor 04 Adj Professor 06 Clin Prof 08 Clin Prof Emer 09 Consulting Prof 10 Prof Emeritus 11 Professor SD3-6 12 Prof In Resid 13 Prof of Clin 14 Research Prof 15 Professor 03-6 16 Visiting Prof 18 Visit Res Prof 19 Prof-Courtesy	Item 206 of line 19, copied.	

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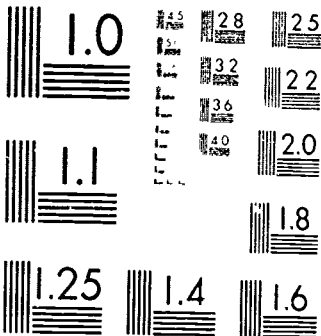
APPENDIX 8 (Cont'd)

Variable Number	Variable Label	Description of Variable	Values of Variable and Their Meaning	Derivation from Accession Form	Special Notes on Processing
28	cont.		<p><u>ASSOCIATE PROFESSOR LECTURER & OTHER</u></p> <p>20 Assoc Prof 80 Adjunct</p> <p>21 Assoc Prof D3-6 81 Adjunct Assoc</p> <p>22 Adj Assoc Prof 82 Princip Assoc</p> <p>23 Assoc Adj Prof 84 Clin Asst</p> <p>24 Assoc Clin Prof 85 Rsrch Spec.</p> <p>25 Assoc Prof Emer 86 Clin Assoc</p> <p>26 Assoc Prof Resd 87 Consultant</p> <p>27 Assoc Res Prof 88 Lecturer</p> <p>28 Clin Assoc Prof 89 Visit Lecturer</p> <p>29 Assoc Prof D-1 90 Associate</p> <p>30 Res Assoc Prof 91 Teaching Assoc</p> <p>32 Visit Assoc Prof 92 Assistant</p> <p>34 Act Assoc Prof 93 Teaching Asst</p> <p>35 Assoc Prof Clin 94 Fellow</p> <p>36 Cl Assoc Prf D2 95 Res. Fellow</p> <p>38 Consult Assoc Pr 96 Research Asst</p> <p>97 Research Assoc</p> <p>98 Other</p> <p><u>ASSISTANT PROFESSOR</u></p> <p>40 Asst Prof</p> <p>42 Adj Asst Prof NO INFORMATION</p> <p>43 Asst Adj Prof 00 None</p> <p>44 Asst Clin Prof 99 Unknown</p> <p>45 Asst Prof Clin</p> <p>46 Asst Prof Resid</p> <p>47 Asst Res Prof</p> <p>48 Clin Asst Prof</p> <p>49 Adj Asst Prof Cl</p> <p>50 Res Asst Prof</p> <p>51 Asst Prof D3-6</p> <p>52 Visit Asst Prof</p> <p>54 Asst Prof D-L</p> <p>55 Cl Asst Prf D-L</p> <p>56 Cl Asst Prof D2</p> <p>57 Act Asst Prof</p> <p><u>INSTRUCTOR</u></p> <p>60 Instructor</p> <p>61 Asst Clin Instr</p> <p>62 Adj Instructor</p> <p>63 Asst Instructor</p> <p>64 Clin Instr</p> <p>65 Instructor D-1</p> <p>66 Clin Instr Sen</p> <p>67 Act Instructor</p> <p>68 Instru in Resid</p> <p>69 Instru of Clin</p> <p>70 Instru Senior</p> <p>71 Visting Instr</p> <p>72 Research Instr</p> <p>74 Assoc In. tr</p>		

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APPENDIX B (Cont'd)

Variable Number	Variable Label	Description of Variable	Values of Variable and Their Meaning	Derivation from Accession Form	Special Notes on Processing
29	RANK6	Six categories of academic rank	<p>1 = Professor 2 = Associate Professor 3 = Assistant Professor 4 = Instructor 5 = Clinical (modified) ranks</p> <p>6 = Lecturer-and-other ranks</p> <p>D = No information</p>	<p>Item 20G of line 19 recoded from the following values (see RANK, above, for meaning): codes 02, 11, 15 codes 20, 21, 29 codes 40, 51, 54 codes 60 & 65 codes 06, 08, 13, 24, 28, 33, 35, 36, 44, 45, 48, 49, 55, 56, 61, 64, 66, 69, 84, 86 codes 04, 09, 10, 12, 14, 16, 18, 19, 22, 23, 25, 26, 27, 30, 32, 34, 38, 42, 43, 46, 47, 50, 52, 57, 62, 63, 67, 68, 70, 71, 72, 74, 75, 79, 80-83, 85, 87-98 codes 0 & 99</p>	
30	PELNAT	Nature of employment previous to current appointment.	<p>1 = Medical schools-full-time 2 = Medical school-part-time 3 = Medical school-volunteer 4 = Other academic foundation or institution 5 = Foreign employment 6 = Private practice 7 = Government employment 8 = Other employment 9 = In training 10 = Not specified 11 = Unknown</p>	<p>Items 20C and 20F of line 20 (previous employment location and type of previous employment) were recoded. Employment location is coded by any one of three tables of codes which are utilized to create the 11 new values.</p>	New values 9, 10, and 11 are omitted from tables.
31	TOTJOB	Total number of professional jobs in employment history.	Values 1-7 indicate the number of professional jobs (one means current faculty appointment only).	Computed from item 20C of lines 20 through 25, where employment information on any line adds +1 to the number of jobs held.	(In 1971-72 files, also).
32	PRIV	Whether M.D. faculty had private practice experience	<p>0 = no 1 = yes 2 = Not applicable (not an M.D.)</p>	Code 1800000 from Table 3 exists in item 20C of any line, 20-25.	(In 1971-72 file, also).
33	DEGREE	Composite degree	<p>1 = M.D. and Ph.D./D.H.D. degrees 2 = M.D. only 3 = Ph.D. or other health doctorate (D.H.D.) 4 = Non-doctoral (no M.D. or Ph.D./D.H.D. degree) 0 = No information on degrees held.</p>	From Items 30A (degree code) and 30D (year completed) on lines 30-34. If the year of completion of any degree is 1976 or earlier, the degree is used to create the composite degree variable according to the following degree codes:	(In 1971-72 file, also).



MICROCOPY RESOLUTION TEST CHART

NATIONAL BUREAU OF STANDARDS - 1963-A

APPENDIX B (Cont'd)

Variable Number	Variable Label	Description of Variable	Values of Variable and Their Meaning	Derivation from Accession Form	Special Notes on Processing
33 Cont.				<u>M.D. degrees (codes 100-130):</u> 100 D O 110 FRCP 111 FRCS 120 MB BS 121 MRACP 122 MRCOG 123 MRCP 124 MRCP-E 125 MRCP-I 130 HMD <u>Ph.D. and other non-medical doctorates in health related professions (codes 200-370):</u> 200 D O 210 D ED 215 D E 220 D EE 225 D LIT 230 D M SC 240 D SC 250 D SW 260 D JUR SC 265 LL D 270 PH D 300 D DS 310 D PH 320 D V M 330 OD 340 POD D 350 D MD 360 D PHARM 370 D C <u>Non-doctoral Degrees (codes 400-610):</u> <u>a. Masters</u> 400 LL M 410 M A 420 M B A 425 M ED 430 M EE 435 M HA 440 M HYG 441 M LS 450 M PH 460 M S 470 M SW 480 PH M 490 TH M	

APPENDIX B (Cont'd)

Variable Number	Variable Label	Description of Variable	Values of Variable and Their Meaning	Derivation from Accession Form	Special Notes on Processing
33 Cont.				b. Bachelor/Associate 500 B A 510 B D 511 B DS 520 B E 530 B EO 540 B S 550 J D 560 LL B 565 PH B 570 B PH 580 MB 600 ASSOCIATE 610 OTHER	
34	DEGR3	Composite degree, with a single M.D. category	1 = M.D. & Ph.D./O.H.D., or M.D.-only 2 = Ph.D. or O.H.D. 3 = Non-doctoral 0 = No information on degrees held	From variable DEGREE, codes 1&2 code 3 code 4 code 0	
35	DEGR	Composite degree for three categories doctoral faculty	1 = M.D. and Ph.D./O.H.D 2 = M.D. only 3 = Ph.D. or O.H.D. 0 = No information, or no doctoral degree	From variable DEGREE, code 1 code 2 code 3 codes 4 & 0	
36 37 38 39 40	DY1 DY2 DY3 DY4 DY5	Year of completion of degrees, for up to five earned degrees	Values for DY1 through DY5: 100-176 = year of completion (1900-1976) of M.D. degree (codes 100-130) 200-276 = year of completion of Ph.D. or other health doctorate (codes 200-370) 300-376 = year of completion of Medical Masters degree (codes 11, M.DS.; 12, M.MED.; or 13, M. Surg.) 400-476 = year of completion of Masters degree (codes 400-499) 500-576 = year of completion of Bachelor or Associate degree (codes 500-610)	From items 30A (degree code) and 30D (year completed) on lines 30-34.	
41	CTR:MD	First five digits of 7-digit code indicating institution granting last-earned M.D. degree	0 = no information on institution granting M.D. degree to M.D. faculty 01090-88699 = institution codes 99999 = not applicable (faculty member does not have an M.D. degree)	Copy first 5 digits from item 30C, for the M.D. degree (item 30A) earned in the most recent year (item 30D), from lines 30-34.	

APPENDIX B (Cont'd)

Variable Number	Variable Label	Description of Variable	Values of Variable and Their Meaning	Derivation from Accession Form	Special Notes on Processing																																														
42	USFOR	Indication of whether last-earned M.D. degree is from a U.S., Canadian or foreign institution (M.D.'s only)	0 = no information, for M.D. faculty 1 = U.S.-trained 2 = Canadian-trained 3 = foreign-trained 4 = Not applicable (does not hold an M.D. degree)	Variable CTRYMD = D " 01000-57999 " 81070-81079 " 81000-89999 (except 81070-81079) " 99999																																															
43	INTRN	Number of internships of M.D. faculty	0-2 = number of internships (none, one, two) 3 = missing information, for M.D.'s 4 = not applicable (does not hold an M.D. degree)	From Item 38B (year internship was completed) on lines 37 and 38	(In 1971-72 file, also).																																														
44	RESO	Number of residencies of M.D. faculty	0-4 = number of residencies (none, to four) 5 = missing information, for M.D.'s 6 = not applicable (does not hold an M.D. degree)	Items 40B (U.S. residency service code) and 40C (year residency was completed) on lines 40-43. Add +1 to number of residencies for each line with a valid service code and year of completion prior to 1977.																																															
45	RSP1	U.S. residency	Values for each of 4 residencies:	Item 40B on lines 40-43:	(In 1971-72 file, also).																																														
46	RSP2	service codes	0 = no residency, or not an M.D.	Values 0,888,889,998,999	Recorded values were grouped																																														
47	RSP3	(specialty areas)	100-280= residency service codes	Values 060-075 recoded to 260-275; values 076-280 copied, as is.	for Table 22 as follows:																																														
48	RSP4				<table><tr><th>Residency Specialty</th><th>Service Codes</th></tr><tr><td>Pathology</td><td>160-165</td></tr><tr><td>Anesthesiology</td><td>100</td></tr><tr><td>Dermatology</td><td>110</td></tr><tr><td>Family Practice</td><td>250</td></tr><tr><td>General Practice</td><td>251</td></tr><tr><td>Internal Medicine</td><td>130</td></tr><tr><td>Neurology</td><td>140</td></tr><tr><td>Nuclear Medicine</td><td>280</td></tr><tr><td>Ob-Gyn</td><td>150</td></tr><tr><td>Ophthalmology</td><td>160</td></tr><tr><td>Orthopedic Surgery</td><td>170</td></tr><tr><td>Otolaryngology</td><td>180</td></tr><tr><td>Pediatrics</td><td>190-192</td></tr><tr><td>PM & R</td><td>200</td></tr><tr><td>Preventive Medicine</td><td>224</td></tr><tr><td>Child Psychiatry</td><td>211</td></tr><tr><td>General Psychiatry</td><td>212</td></tr><tr><td>Public Health</td><td>223</td></tr><tr><td>Radiology</td><td>229-239</td></tr><tr><td>General Surgery</td><td>240</td></tr><tr><td>Neurolog. Surgery</td><td>242</td></tr><tr><td>Plastic Surgery</td><td>243</td></tr></table>	Residency Specialty	Service Codes	Pathology	160-165	Anesthesiology	100	Dermatology	110	Family Practice	250	General Practice	251	Internal Medicine	130	Neurology	140	Nuclear Medicine	280	Ob-Gyn	150	Ophthalmology	160	Orthopedic Surgery	170	Otolaryngology	180	Pediatrics	190-192	PM & R	200	Preventive Medicine	224	Child Psychiatry	211	General Psychiatry	212	Public Health	223	Radiology	229-239	General Surgery	240	Neurolog. Surgery	242	Plastic Surgery	243
Residency Specialty	Service Codes																																																		
Pathology	160-165																																																		
Anesthesiology	100																																																		
Dermatology	110																																																		
Family Practice	250																																																		
General Practice	251																																																		
Internal Medicine	130																																																		
Neurology	140																																																		
Nuclear Medicine	280																																																		
Ob-Gyn	150																																																		
Ophthalmology	160																																																		
Orthopedic Surgery	170																																																		
Otolaryngology	180																																																		
Pediatrics	190-192																																																		
PM & R	200																																																		
Preventive Medicine	224																																																		
Child Psychiatry	211																																																		
General Psychiatry	212																																																		
Public Health	223																																																		
Radiology	229-239																																																		
General Surgery	240																																																		
Neurolog. Surgery	242																																																		
Plastic Surgery	243																																																		

APPENDIX B (Cont'd)

Variable Number	Variable Label	Description of Variable	Values of Variable and Their Meaning	Derivation from Accession Form	Special Note on Processing																																																				
48 Cont.					<table><tr><td>Residency Specialty</td><td>Service Codes</td></tr><tr><td>Thoracic Surgery</td><td>244</td></tr><tr><td>Urology</td><td>245</td></tr><tr><td>Other</td><td>220, 221, 222, 223, 224, 241, 246, 280</td></tr></table>	Residency Specialty	Service Codes	Thoracic Surgery	244	Urology	245	Other	220, 221, 222, 223, 224, 241, 246, 280																																												
Residency Specialty	Service Codes																																																								
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Urology	245																																																								
Other	220, 221, 222, 223, 224, 241, 246, 280																																																								
49	CERT	Number of Board Certifications of M.D. faculty	0-2 = number of certifications (none, one, two) 3 = missing information for M.D.'s 4 = not applicable (does not hold an M.D. degree)	From Items 47 and 49 (year certification was completed)	(In 1971-72 file, also).																																																				
50 51	CSP1 CSP2	U.S. Medical specialty codes (areas of board certification)	Values for each of two certifications: 0 = no certification, or not an M.D. 100-280 = certification codes	Items 46 and 48 recoded Values 0,888,889,998,999 Values 060-075 recoded to 260-275; values 076-280 copied, as is.	(In 1971-72 file, also). Recoded values were grouped for Table 25 as follows: <table><tr><td>Medical Specialty</td><td>Codes</td></tr><tr><td>Anatomic Pathology</td><td>161</td></tr><tr><td>Clinical Pathology</td><td>162</td></tr><tr><td>PA & Clin Pathology</td><td>163, 164, 165, 167, 168, 169, 170, 174, 175</td></tr><tr><td>Anesthesiology</td><td>100</td></tr><tr><td>Cardiovasc. Disease</td><td>133</td></tr><tr><td>Dermatology</td><td>110</td></tr><tr><td>Family Practice</td><td>250</td></tr><tr><td>Gastroenterology</td><td>135</td></tr><tr><td>Gen'l. Prev. Med.</td><td>220</td></tr><tr><td>Internal Medicine</td><td>130</td></tr><tr><td>Neurology</td><td>140-141</td></tr><tr><td>Nuclear Medicine</td><td>280</td></tr><tr><td>Ob-Gyn</td><td>150</td></tr><tr><td>Ophthalmology</td><td>160</td></tr><tr><td>Orthopedic Surgery</td><td>170</td></tr><tr><td>Otolaryngology</td><td>180</td></tr><tr><td>Pediatrics (Gen'l)</td><td>190</td></tr><tr><td>Ped. Cardiology</td><td>192</td></tr><tr><td>Ped. - Other</td><td>191, 194, 196</td></tr><tr><td>PM & R</td><td>200</td></tr><tr><td>Psychiatry & Neurol.</td><td>210</td></tr><tr><td>Child Psychiatry</td><td>211</td></tr><tr><td>Psychiatry</td><td>212, 213</td></tr><tr><td>Pulmonary Diseases</td><td>136</td></tr><tr><td>Radiology (Gen'l)</td><td>230</td></tr></table>	Medical Specialty	Codes	Anatomic Pathology	161	Clinical Pathology	162	PA & Clin Pathology	163, 164, 165, 167, 168, 169, 170, 174, 175	Anesthesiology	100	Cardiovasc. Disease	133	Dermatology	110	Family Practice	250	Gastroenterology	135	Gen'l. Prev. Med.	220	Internal Medicine	130	Neurology	140-141	Nuclear Medicine	280	Ob-Gyn	150	Ophthalmology	160	Orthopedic Surgery	170	Otolaryngology	180	Pediatrics (Gen'l)	190	Ped. Cardiology	192	Ped. - Other	191, 194, 196	PM & R	200	Psychiatry & Neurol.	210	Child Psychiatry	211	Psychiatry	212, 213	Pulmonary Diseases	136	Radiology (Gen'l)	230
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APPENDIX B (Cont'd).

Variable Number	Variable Label	Description of Variable	Values of Variable and Their Meaning	Derivation from Accession Form	Special Notes on Processing
51 Cont.					<u>Medical Specialty</u> Radiology (Specific) Codes 229 & 231-239 Surgery 240 Neurological Surgery 242 Plastic Surgery 243 Thoracic Surgery 244 Urology 245 Other 128, 129, 131, 132, 134, 137, 138, 139, 271, 272, 273, 223, 241, 246, 154, 156, 195, 221, 222
52	PRED	Number of pre-doctoral awards to Ph.D./O.H.O. faculty	0-3 = number of awards 4 = no information for Ph.D./O.H.O.'s 5 = not applicable (does not hold a Ph.D./O.H.O. degree)	From Items 56B (award discipline) and 56E (year award began) on lines 56-58. Add +1 to number of awards for each award beginning in 1976 or earlier, with a valid specialty code.	
53 54 55	PRESP1 PRESP2 PRESP3	Pre-doctoral support discipline for up to three awards. (to Ph.D./O.H.O. faculty)	0 = no award, or not a Ph.D./O.H.O. 1-33 indicate specialty/discipline areas as for the variable SPCLTY (variable #10).	From Items 56B (award discipline) on lines 56-58.	
56 57 58	PRES01 PRES02 PRES03	Source of pre-doctoral	0 = not identifiable, unknown, or not applicable (does not hold a Ph.D./O.H.O.) 1 = NIH 2 = Other Public Health Service (Including NIMH) 3 = SRS 4 = OE 5 = Other DHEW 6 = UA 7 = NSF 8 = Federal-Other 9 = Foreign 10 = Industry 11 = Foundation 12 = Miscellaneous	Item 560 (award source) codes 0, 30, 99 " 11 " 12 " 16 " 18 " 13, 14, 15, 17 " 23 " 24 " 25 " 35 " 37 " 38 " 39	For Tables 27 and 30, the "State" category is listed after "Foundation" and "Miscellaneous" is combined with "other."

APPENDIX B (Cont'd)

Variable Number	Variable Label	Description of Variable	Values of Variable and Their Meaning	Derivation from Accession Form	Special notes on Processing
58 Cont.			13 = Academic-foreign 14 = Academic 15 = State 16 = Other	codes 45 " 46 " 50 " 90	
59 60 61	PREYR1 PREYR2 PREYR3	Time period in which pre-doctoral awards began (for Ph.D./O.H.D. faculty)	0 = unknown, or not applicable (does not hold a Ph.D./O.H.D.) 1 = award began 1901-1949 2 = award began 1950-1959 3 = award began 1960-1969 4 = award began 1970-1976	1 From Items 56E (year award began) on lines 56-58	
62	POST	Number of post-doctoral awards to M.D. or Ph.D./O.H.D. faculty	0-6 = number of awards 5 = no information, for doctoral faculty 6 = not applicable (does not hold any doctoral degree)	From Items 60B (award discipline) and 60F (year award began) on lines 60-63. Add +1 to number of awards for each award beginning in 1976 or earlier, with a valid specialty code.	
63 64 65 66	POSSP1 POSSP2 POSSP3 POSSP4	Post-doctoral support discipline for up to four awards (to doctoral faculty)	0 = no award, or non-doctoral faculty 1-33 = indicate specialty/ discipline areas as for the SPCLTY variable (#10)	From Item 60B (award discipline) on lines 60-63.	
67 68 69 70	POSS01 POSS02 POSS03 POSS04	Source of post-doctoral awards, for up to four awards (to doctoral faculty)	0 = not identifiable, unknown or not applicable (non-doctoral faculty) Values 1-16 are the same as for variables 56-58, PRES01, PRES02, and PRES03.	From Item 60D (award source), same codes as for variables 56-58	
71 72 73 74	POSYR1 POSYR2 POSYR3 POSYR4	Time period in which post-doctoral awards began (for doctoral faculty)	0 = unknown, or not applicable (non-doctoral faculty) 1 = award began 1901-1949 2 = award began 1950-1959 3 = award began 1960-1969 4 = award began 1970-1976	From Item 60E (year award began), on lines 60-63	

APPENDIX B (Cont'd)

Variable Number	Variable Label	Description of Variable	Values of Variable and Their Meaning	Derivation from Accession Form	Special Notes on Processing
75	RNKDGR	Combinations of rank and degree	1 = Professor - M.D. & Ph.D. 2 = " M.D. 3 = " Ph.D./O.H.D. 4 = " Non-doctoral 5 = Associate Professor - M.D. & Ph.D. 6 = " M.D. 7 = " Ph.D./O.H.D. 8 = " Non-doctoral 9 = Assistant Professor - M.D. & Ph.D. 10 = " M.D. 11 = " Ph.D./O.H.D. 12 = " Non-doctoral 13 = Instructor - M.D. & Ph.D. 14 = " M.D. 15 = " Ph.D./O.H.D. 16 = " Non-doctoral 17 = Clinical rank - M.D. & Ph.D. 18 = " M.D. 19 = " Ph.D./O.H.D. 20 = " Non-doctoral 21 = Lecturer or other rank - M.D. & Ph.D. 22 = " M.D. 23 = " Ph.D./O.H.D. 24 = " Non-doctoral 0 = missing rank or degree information	From variable #29 (RANK6) and variable #33 (DEGREE)	
76	DEPTBC	Basic vs. Clinical science primary department	0 = no information 1 = Basic science departments 2 = Clinical science department	From variable #24, DEPT: DEPT codes 1-10 DEPT codes 11-25	
77	D4SEX	Combinations of four degree groups and sex	1 = M.D. & Ph.D.-males 2 = " -females 3 = M.D. -males 4 = " -females 5 = Ph.D./O.H.D.-males 6 = " -females 7 = Non-doctoral-males 8 = " -females 0 = missing degree or sex information	From variable #33 (DEGREE) and variable #2 (SEX)	

APPENDIX B (Cont'd)

Variable Number	Variable Label	Description of Variable	Values of Variable and Their Meaning	Derivation from Accession Form	Special Notes on Processing
83	NEWHIR	Whether a faculty member was first hired to any salaried medical school faculty position in 1975 or 1976.	0 = no information 1 = first hired in 1975 or 1976 2 = first hired prior to 1975	From variable #8 (YR1FAC)	
84	D4NEW	Combinations of four degree groups, and whether faculty member is newly-hired	0 = missing information on degree or first med. school appointment 1 = M.D. & Ph.D. - new-hire 2 = " - other 3 = M.D. - new-hire 4 = " - other 5 = Ph.D./O.H.D. - new-hire 6 = " - other 7 = Non-doctoral - new-hire 8 = " - other	From variable #33 (DEGREE) and variable #83 (NEWHIR)	

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ABSTRACT

Factors involved in conducting an effective search for a college or university president are analyzed. Emphasized are issues to be resolved with respect to defining the role of the board of trustees, outgoing president, consultant, and search committee. A series of recommendations are set forth that cover the entire search process beginning with the formation of a search committee and concluding with the final report to the board. These recommendations are considerable and are applicable to all institutions of higher education. (Author/LBH)

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FINDING A COLLEGE PRESIDENT

Esther Kronovet and Warren Hawley*

Palomar College

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Initiating the search

The most important duty of any board of trustees is to select a new college or university president. Therefore, it is the purpose of this article to trace the search process from start to finish. The intent of the authors is to further discuss each phase of the process in some depth and, finally, to set forth a series of recommendations which are designed to facilitate the search.

Collectively, articles on the search for college or university presidents present a composite picture of the process involved. They also pinpoint issues, while extending words of caution in the form of specific pitfalls to be avoided. Nonetheless, many search committees are either unfamiliar with these publications or choose to review and then ignore them in favor of foundering under their own conditions of experimentation.

For those who have been involved in the search process, there is likely to be an expression of relief when the final decision is announced. This, however, may be followed by yet another feeling that somehow the results of weeks and months of searching, reviewing, debating, arguing and voting should not be altogether lost to others who are yet to become involved in this process.

*Esther Kronovet and Warren Hawley are at Palomar College as Affirmative Action Coordinator and Associate Professor of Social Sciences, respectively.

It is widely recognized that the college scene has changed dramatically in recent years as a result of many factors, including the activism of the 1960's, collective bargaining, widespread involvement of major constituencies in governance, the diffusion of decision-making authority, and affirmative action programs. It is not surprising, therefore, that these changes have brought about a significant difference in the way in which colleges and universities approach the entire search process at the presidential level.

Father Reinert, in detailing the problems of search committees, points out that no longer is the perspective candidate likely to be approached without prior notice, the way in which Douglas McGregor was spirited away from Massachusetts Institute of Technology to become Antioch's president in 1948.¹ It is also unlikely that the candidate will be assessed at an informal gathering and offered a presidency on the spot. Instead, search procedures have evolved into a highly complex, structured and costly process. Although few institutions will approach expenditures amounting to the estimated \$500,000. it cost Harvard to find a successor for Nathan M. Pusey² they must still be prepared to loosen their purse strings or find that their recruiting and search procedures are not yielding anticipated results.

As with any task, the more complex the variables, the more difficult it is to know where to begin. The question of how to launch the search process is likely to be the first one confronting the board, and, since most boards lack experience in conducting an effective search, they are considerably ahead of the game if they recognize their need for help. Furthermore, if they have the patience to think through the major issues

¹Paul C. Reinert, S.J. "The Problem with Search Committees," College Management, February, 1974, p. 10.

²Ibid.

with which they must come to grips before anything of significance can happen, they are really "off and running."

The most basic issue has to do with the composition and selection of the search committee. Out of an interest in having the "broadest base," and "widespread representation" from within the academic institution and community it serves, boards may by-pass the most significant consideration of all: a determination of the nature of the expertise which it is vital for members to bring to such a committee. A high level of expertise is essential if, for example, they are to pursue an astute line of questioning and probe any superficial response in order to promote a meaningful exchange of ideas.

Importance of consultant

Before selecting a search committee, the board should find a consultant. The importance of retaining the services of a consultant cannot be overemphasized, particularly since most boards are in need of guidance from the start for organizing and implementing the search process. The individual selected as a consultant should be widely recognized on the basis of his/her knowledge, experience and effectiveness with college and university management, as well as scholarly contributions to higher education, other academic disciplines or research. The consultant should have a key role during each phase of the search, so that he/she works with the board during the planning stage, and throughout the pre-screening, screening, interview and final evaluation phases. In addition, the consultant's role should include the coordination of the overall search endeavor, presiding over the presidential search office with its executive secretariat, while functioning as surrogate board with respect to certain

levels of decision-making authority. On the basis of the presumed competency and objectivity which the consultant brings to the college or university, it is also desirable to have him/her chair the search committee, thereby removing from the search process many biases, hidden agendas and subtle pressures which otherwise are heightened when individuals from within the campus and with vested interests are placed in this important advisory position.

The consultant can readily determine whether committee members should vote by secret ballot or hand count. It is important that members not feel in any way intimidated in casting their votes, or feel threatened that the views expressed at committee meetings will flow over to negatively affect their working relationship with colleagues or the new president after he/she is selected. The consultant can also look for signs of abuse of power, so that such efforts can be diluted within the group and not have an adverse impact on the search process.

Along similar lines, it is important that the consultant be chosen independently of the outgoing president and preferably that they not have a record of close personal ties. Conditions that enhance the consultant's objectivity should be preserved from the very beginning of the search process. Toward this end, the board may be well advised to hire a consultant from outside the state.

Role of the outgoing president

Although the board may be tempted to involve the outgoing president in the search process, either as a full voting participant or as a resource person, the disadvantages of doing this outweigh any nominal gains to be realized. In the first instance, the president is too close to the problem

to be able to provide an objective point of view, particularly if before the search gets underway, the president favors either an in-house applicant or one from outside the institution.

Another drawback to involving the outgoing president is related to his level of influence among members of the search committee, which might spring from close personal or professional association. It is, therefore, important that the board appoint members to the search committee who do not feel directly or subtly pressured to comply with the president's preferences.

Appointing a search committee

The size of the search committee should be determined by how many individuals are needed to bring expertise to the process. Therefore, its size can vary depending upon the number of categories, as well as criteria that have been identified as measuring sticks for assessing candidates' competency. Needless to say, a small committee is best suited to question and interact with a candidate. By contrast, a larger committee is handicapped since each member has less time in which to question and to clarify issues. Under these conditions spontaneity may be lost, and with it the freedom to pursue new lines of questioning when such a course of inquiry would be beneficial to the committee. In addition, the atmosphere is likely to become more formal as the committee increases in size. It also becomes more difficult to control confidentiality, one of the important injunctions to be imposed on a search committee. Finally, as indicated by Williams' study of reactions by chairpersons to the search operation,

committees that average fifteen or more are "too large for effective management."³

Whatever search committee size is decided upon, it is vital that at least one board member be involved in order to insure continuity between the deliberations of the committee and the final selection by the board of a new president. It is also important that all committee members enjoy full voting privileges. To do otherwise, is to minimize the potential contributions and impact of any one expert selected for membership on the committee. Moreover, extending the vote to all committee members avoids relegating to some a second class citizenship, particularly since the work of the committee demands equally their time, involvement, expertise and contributions to the search process. If there is any question about a potential committee member being entitled to vote during the search process, it would suggest the person doesn't belong on this top level committee. To carry non-voting members through the search process is wasteful of time and energy.

The motivation underlying a committee member's acceptance of an appointment to the search committee can be complex and may range from a genuine interest in finding the best possible person for the presidency to a more personal need for status and power. If it is the latter valence which primarily motivates the individual member, the consultant (particularly if he or she is knowledgeable about leadership skills and small groups processes) can analyze the direction and degree of influence which each

³ Glenn D. Williams, "The Search for an Improbable Paragon (i.e., College President)." Phi Delta Kappan, April, 1976, p. 537.

member exercises, thereby diffusing any attempt to exercise an abuse of power.

Responsibilities of the search committee.

The search committee must identify and design appropriate measuring instruments for each phase of screening. If necessary, the services of a resource person can be retained for developing these tools which may encompass (a) a pre-screening rating scale, (b) a rating scale for more refined screening of those candidates who emerged after initial pre-screening, (c) a questionnaire for conducting the interview, and (d) an evaluation form or rating scale for use following each interview for each candidate. Data can then be compiled by the resource person and presented to the search committee for final analysis and discussion before selecting those to be interviewed. If other sectors of the campus are involved in any aspect of the search process, the format for quantifying data and presenting their input can also be developed and recorded by the resource person for consideration by the search committee.

There is little point in establishing absolute numbers to be interviewed. Instead, the numbers identified should be an outgrowth of how many very strong candidates manage to stay at the top after being evaluated at different stages. Thus, only five may be invited for interviews, or ten or more, depending upon the strength of candidates in the initial applicant pool. This, in turn, will depend upon whether the search committee has timed its advertising to fit in with the professional commitments of potential candidates. Another consideration is whether the specifications outlined in the job announcement are sufficiently attractive to interest those with top level qualifications. Search committees should also be aware that

attractive candidates may withdraw for a variety of personal and professional reasons.

Presidential search committees should be sure to allot sufficient time for each interview. In some cases an applicant can quickly demonstrate a lack of fitness for the position. This is not normally the case, however. Instead, it usually takes time and digging to get a "feel" for the candidate. Time is likely to pass quickly, particularly with individuals who enjoy the give and take of a well conducted interview.

It is important to recognize that a really strong applicant is evaluating the committee just as the committee is judging the candidate. The level of sustained interest on the part of a highly qualified applicant for the presidency will be influenced by the way in which the committee conducts itself in the interview. The physical setting of the interview is also important, both in the impression it makes on the applicant and in facilitating a free, open and spontaneous exchange of views. For these reasons, tables and chairs should be placed in such a manner as to put the applicant at ease, rather than to set the stage so that the applicant is placed in the role of supplicant.

While discussions within the committee regarding each individual applicant should be open and candid, voting is probably best done by secret ballot. Some committee members may be reluctant to express their views openly regarding a candidate for fear of reprisal should their vote become known outside the committee. Others may be unduly influenced in this regard by persons on the committee itself and arguments in favor of open voting are not persuasive. Disadvantages of secret ballots are similarly unimpressive. Whatever form is selected, agreement on voting must be reached well in

advance of the screening process. As suggested previously, the consultant's views on methods of voting are likely to prove helpful.

Lines of inquiry by search committee

In evaluating candidates, a search committee is, in fact, making certain predictions concerning applicants. Toward this end, the committee must assess how the candidate will function with respect to fiscal matters, management, and academic leadership, as well as public relations and fund raising.

It is simple for a committee to formulate a routine set of general questions, most of which are guaranteed to elicit a routine set of general responses. However, it requires a level of specialization among the members to interpret the responses and to follow up with a line of inquiry designed to question, clarify, explore, stimulate, provoke and challenge all candidates. Responses, to be meaningful, must have depth and scope, thereby providing the committee with the basis for not only evaluating, but predicting performance, as well.

There are at least four broad areas of concern to the search committee, one of which deals with money. Colleges and universities, both public and private, are big businesses which must be managed by presidents. Candidates must, therefore, demonstrate an understanding of fiscal affairs which goes beyond establishing a budget to actually administering one. If fund raising is an essential part of the president's responsibilities, this must also enter into the assessment process.

Since a second area concerns management, the search committee will want to explore the candidate's philosophy of management. What is his/her definition of "open door," participatory management, and management by objectives? What is his/her concept of responsibility, authority and

accountability? What are the candidate's views regarding training programs for staff, as well as his/her awareness of potential sources for funding such programs? What kind of communication network does the candidate seem to prefer, and why?

Thirdly, the search committee must concern itself with the applicant's potential for academic leadership, both within and without his/her area of expertise. Can the candidate excite and stimulate those within the college, or university, as well as the community? How does the candidate perceive the relationship between the institution and community?

A fourth area concerns the proper relationship between the major components of the institution itself: instruction, student personnel services, continuing education, and the business office. How does the candidate see these units functioning in relation to each other?

As previously indicated, a search committee must be structured in such a way as to enable it to evaluate the ability of candidates to be effective in at least these four areas. Thus, the committee will be better equipped to carry out its major responsibility which is to evaluate the fitness of the candidate for the job.

The precise nature of the role of the search committee must also be identified very early in the planning stage, particularly its function with respect to determining (a) presidential search budget, (b) the establishment of a presidential search office, (c) the time frame that is to be operative, (d) scope of advertising, and type of information to be included, i.e., salary range, (e) sources and methods for soliciting names, (f) measuring techniques for pre-screening, screening and interviewing, (g) descriptive materials about the institution to be sent to top candidates, (h) the kind of input,

if any, that will be sought from other groups, individuals and committees at the institution, and (i) method for recommending names to the board.

Role of other groups

If the search committee decides to invite input from other groups on campus and in the community, the parameters within which these groups must work should be established. It is important that there be no misconception about their function and relationship to the search committee, or how, at what stage, and for what purpose their input will be drawn into the deliberations of the search committee. Otherwise, the search committee may find too much of its time and energy being channeled toward placating these groups.

The tendency in the presidential search process is to proliferate committees for the sake of satisfying constituencies or vested interest groups inside and outside the institution. Instead, attention should be directed toward limiting the number of evaluators to those best qualified to assess candidates on the basis of their specialized knowledge regarding areas of presidential responsibility. This is not to argue against other committees representing various sectors of the institution, but rather to make a case for identifying the purposes being served and the rationale underlying the inclusion of input from other groups, as well as the basis and method for identifying their membership.

In the event that other committees, representing such components of the college or university as faculty, administration and students, are also involved in the search process, opportunities for misunderstanding and confusion are legend. These problems can be minimized if the roles of such committees, as already suggested, are clearly spelled out in advance

of the process. For example, a decision may be reached to have chairpersons of these committees participate in the process of pre-screening on the grounds that their perspective will be broadened, thereby increasing their effectiveness. In this event, it should be understood that the selection of candidates for interviews is the sole responsibility of the search committee. This task is difficult enough without inviting additional problems.

The benefits to be gained from the involvement of committees or groups can only be determined from an analysis of a particular institution. If it facilitates the search process and helps to refine impressions of leading candidates, it may work well. On the other hand, if committees are multiplied for purposes peripheral to the selection process (i.e., morale, feelings of status), it may be well to avoid going through the time consuming motion of inviting widespread involvement.

Making recommendations to the board

The framework within which candidates are recommended to the board for consideration is a function of two factors: (a) whether or not the board requested the names be submitted unranked or in rank order, and (b) whether or not the board has taken into consideration the relative position of each candidate with respect to each other, since there may be a considerable spread in rating points between the first and second candidate, suggesting that the first candidate is so far ahead of the others that the list of names may actually constitute only one strong recommendation. Under these conditions, if the leading candidate withdraws or refuses the salary offer, the board must decide whether to consider others on the list or reopen the search. A review of job notices in major publications for the position of president

illustrates the fact that boards sometimes find it necessary to extend or reopen the search for a president.

A final report, prepared by the consultant, should accompany the names submitted to all board members, so that they are fully cognizant of the wide range of factors that entered into the entire search process, while also giving something of the "flavor" of interviews and discussions. This should include a description of recruiting procedures, a summary of the background of all applicants, including ethnic groups represented, distribution of men and women, and current position held. The report should also include a description of those invited for interviews, the methods utilized for evaluation, as well as the way in which input from other subcommittees or sectors was invited, received and utilized in the deliberations of the search committee. A commentary about each candidate being recommended to the board should accompany the report. If the board prefers not to have final candidates ranked, this summary about each candidate will at least provide a clearer understanding of the various factors which prompted the search committee to arrive at its recommendations. Committing their reasons to paper may also encourage search committees to do a thorough job throughout the process and help them to focus on significant qualifications, rather than get bogged down in lesser characteristics.

To those who may question or challenge the appropriateness of instituting such a time consuming process into higher education, it should be recognized that colleges and universities have just started to approach the methodical way in which business and industry have gone about evaluating candidates for top level executive positions.

Recommendations

From the foregoing analysis of the presidential search process certain specific recommendations emerge:

1. The services of a consultant of national repute should be retained by the board.
2. The consultant should be involved in every step of the search process.
3. The consultant should chair the presidential search committee.
4. A presidential search office should be established.
5. The consultant should also serve as executive director of the presidential search office.
6. Members of the presidential search committee should be selected on the basis of their expertise in areas of importance to the job of president.
7. At least one board member should serve on the search committee.
8. The outgoing president of the institution should not be involved in nominating or selecting the consultant or members of the search committee.
9. The outgoing president should not be involved in the deliberations of the search committee.
10. The number of members appointed to the search committee should not exceed eight.
11. All members of the search committee should have voting privileges.
12. Voting should take place by secret ballot.
13. The academic calendar should be considered in the timing of the position announcement, as well as the target date for filling the vacancy.

14. Four or more months should be provided for the presidential search.
15. The position announcement must be specific and include salary range.
16. Measuring instruments for evaluating candidates should be designed early in the search.
17. Injunctions for the search committee should be established at the beginning of the search.
18. All committee members must be required to review the files for all applicants. This should be one of the conditions for membership on the search committee.
19. All committee members must agree to attend all meetings and interviews before being appointed to the search committee.
20. Sufficient time should be provided for each interview with flexibility for expanding the time frame whenever necessary.
21. Confidentiality in all matters pertaining to the search must be honored.
22. Involvement of other committees representing specific components of the institution should be encouraged only if it can be demonstrated that these committees have something to contribute of a specific nature, and that they accept the condition that they have a limited scope of authority.
23. The consultant should be expected to prepare a final written report to the board outlining the procedures used by the search committee, as well as the basis for recommending finalists to the board.

Conclusions

The recommendations set forth are intended to make an important and complicated task more organized and manageable. By highlighting issues and establishing a chronology of steps for dealing with these, it is anticipated that the initial planning by any board will be greatly facilitated. It is implicit from the discussion that any attempt to save time, money and effort must be balanced against the risks imposed by such short cuts. Luck may come to the rescue of the board, but the stakes are too high to place reliance on chance. The presidential search is indeed the most important challenge facing the board and must be treated as such.